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Fig 1

A

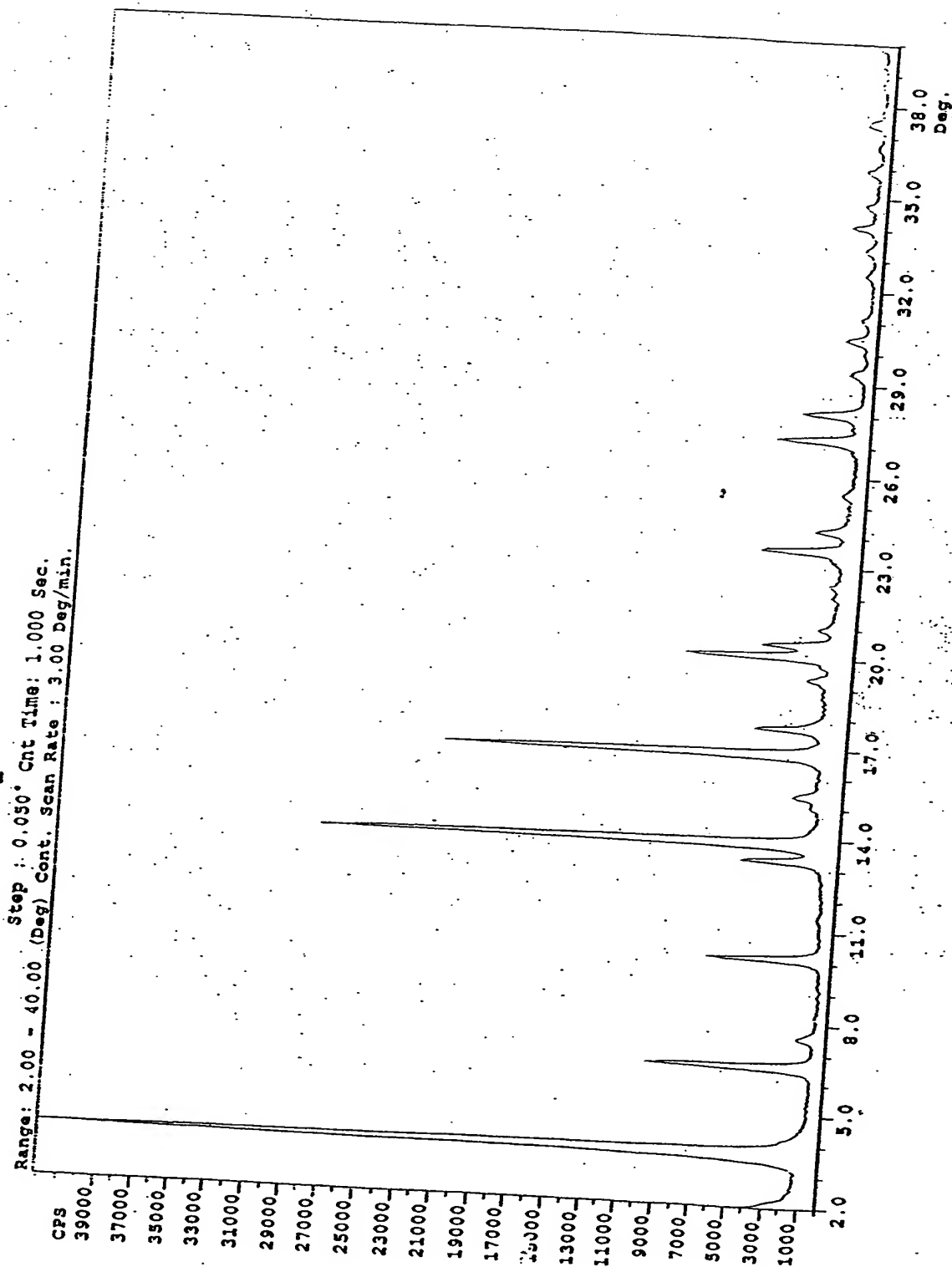


Fig. 2 C

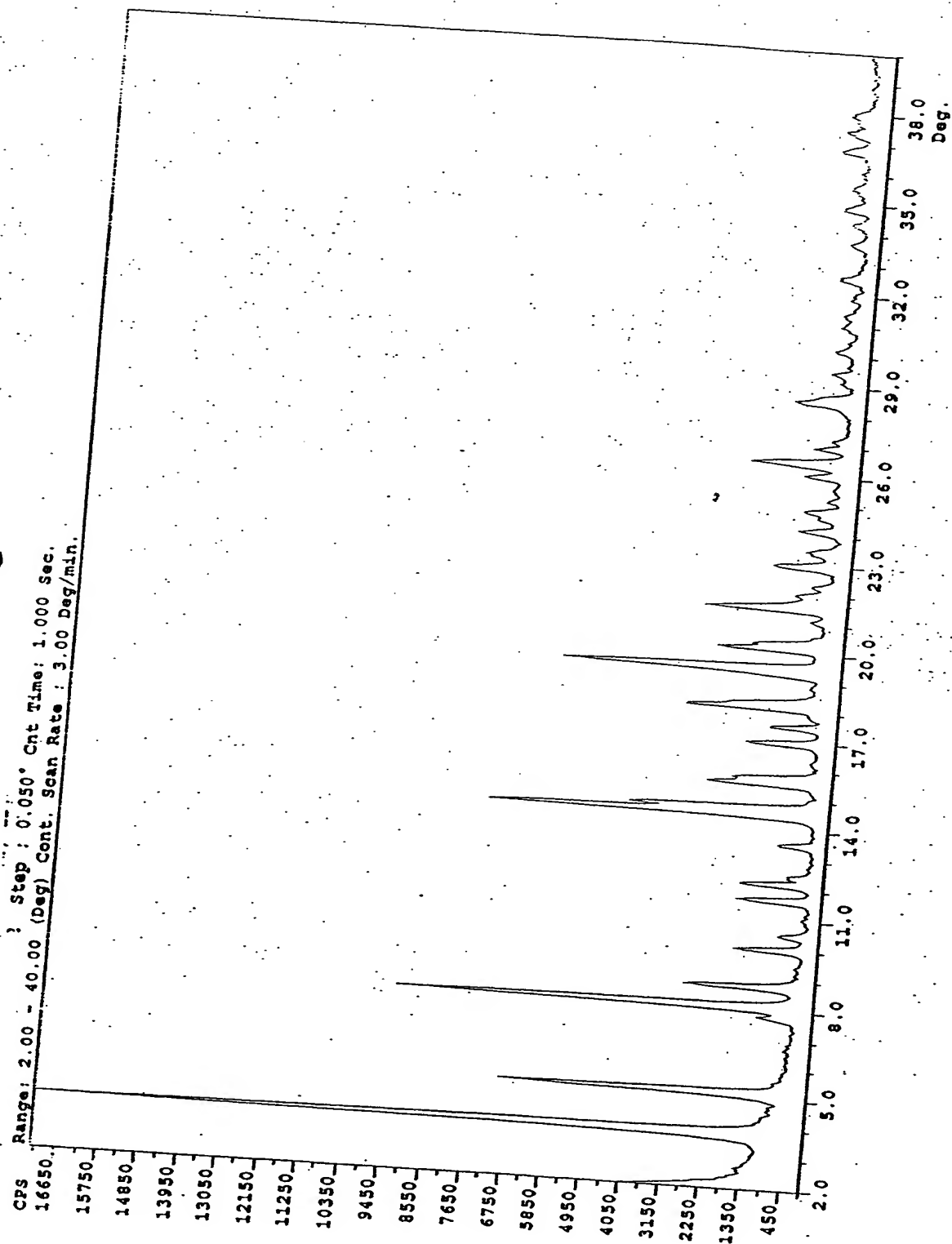


Fig 3 D

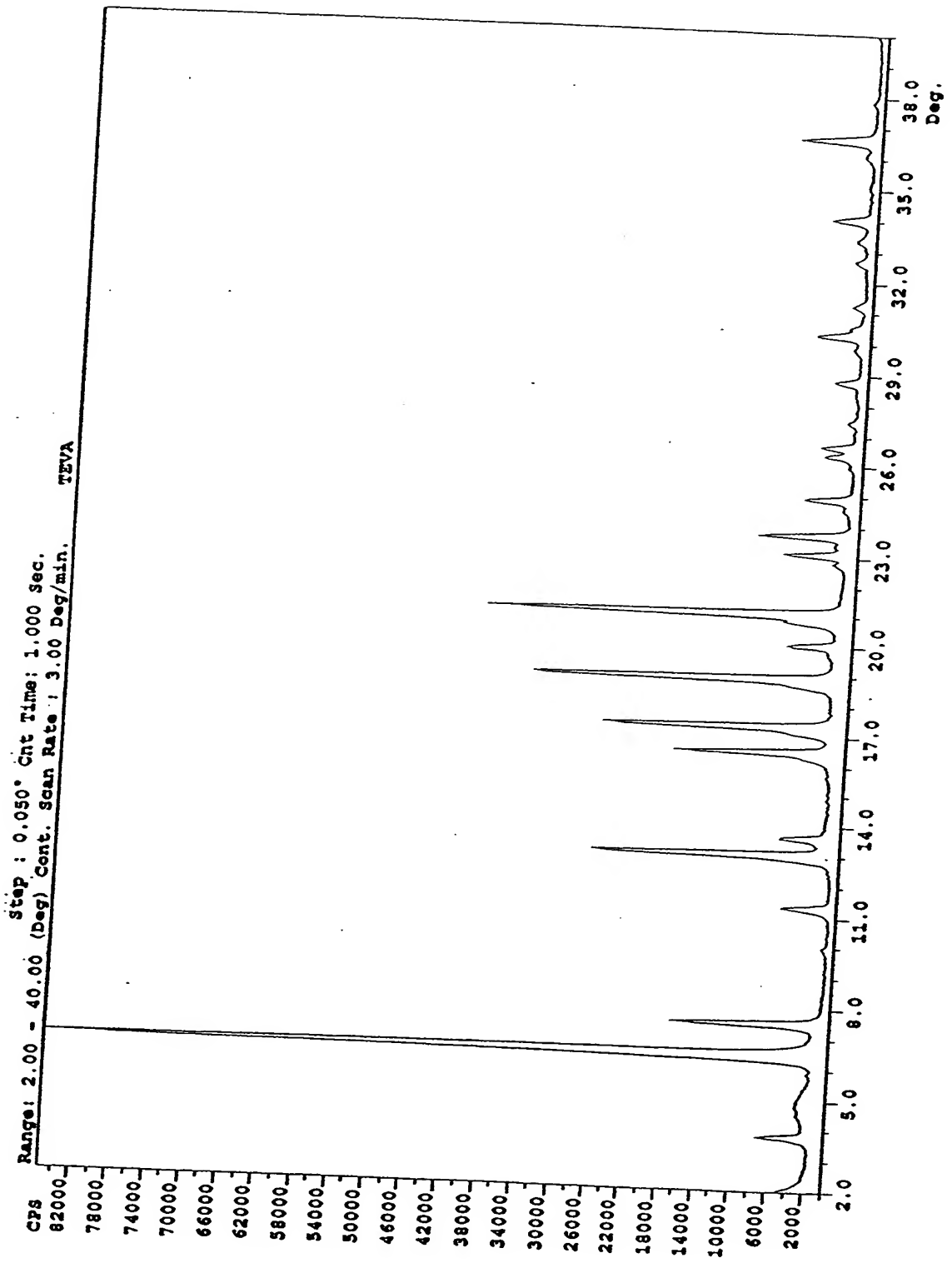


Fig 4 .E

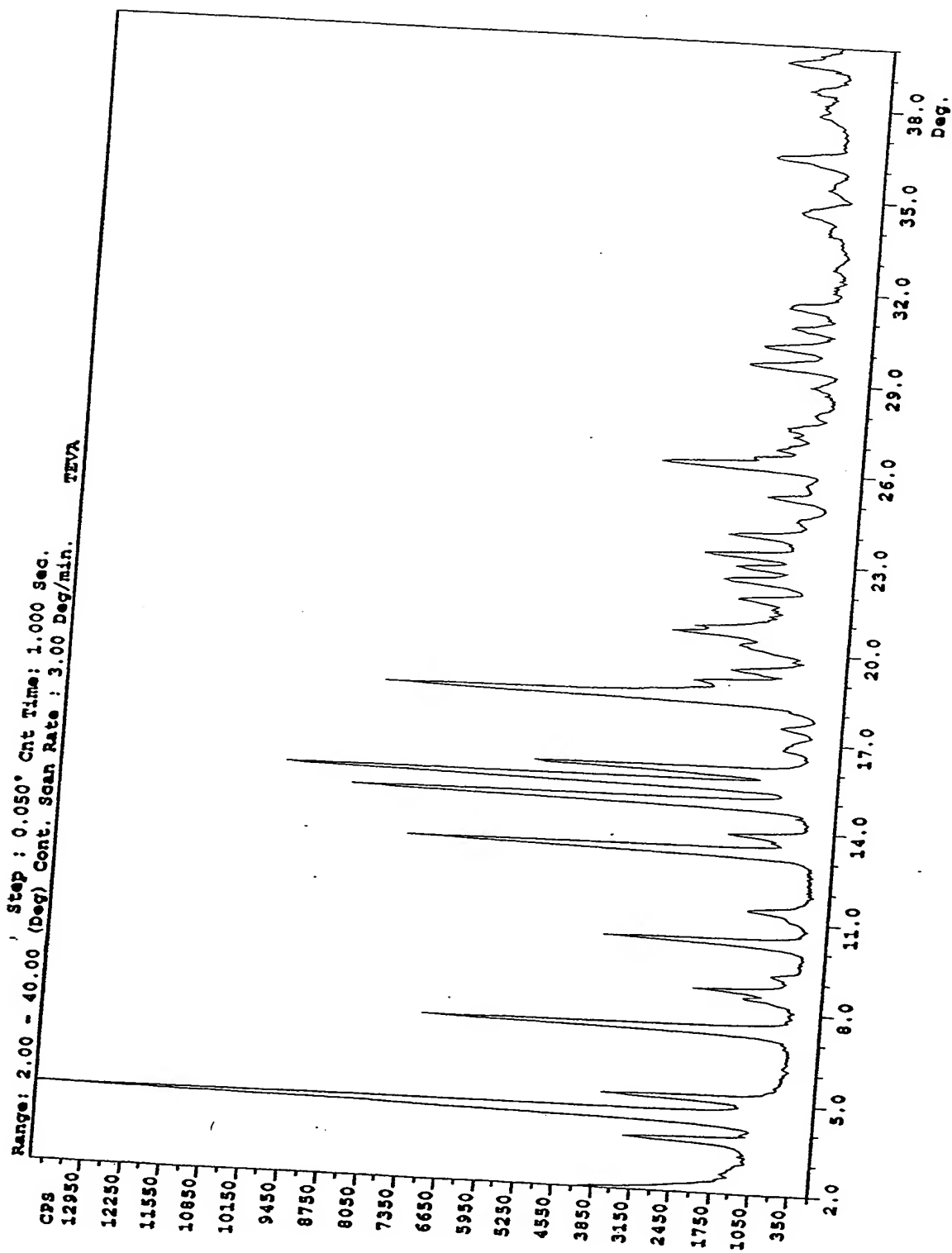


Fig. 5

F

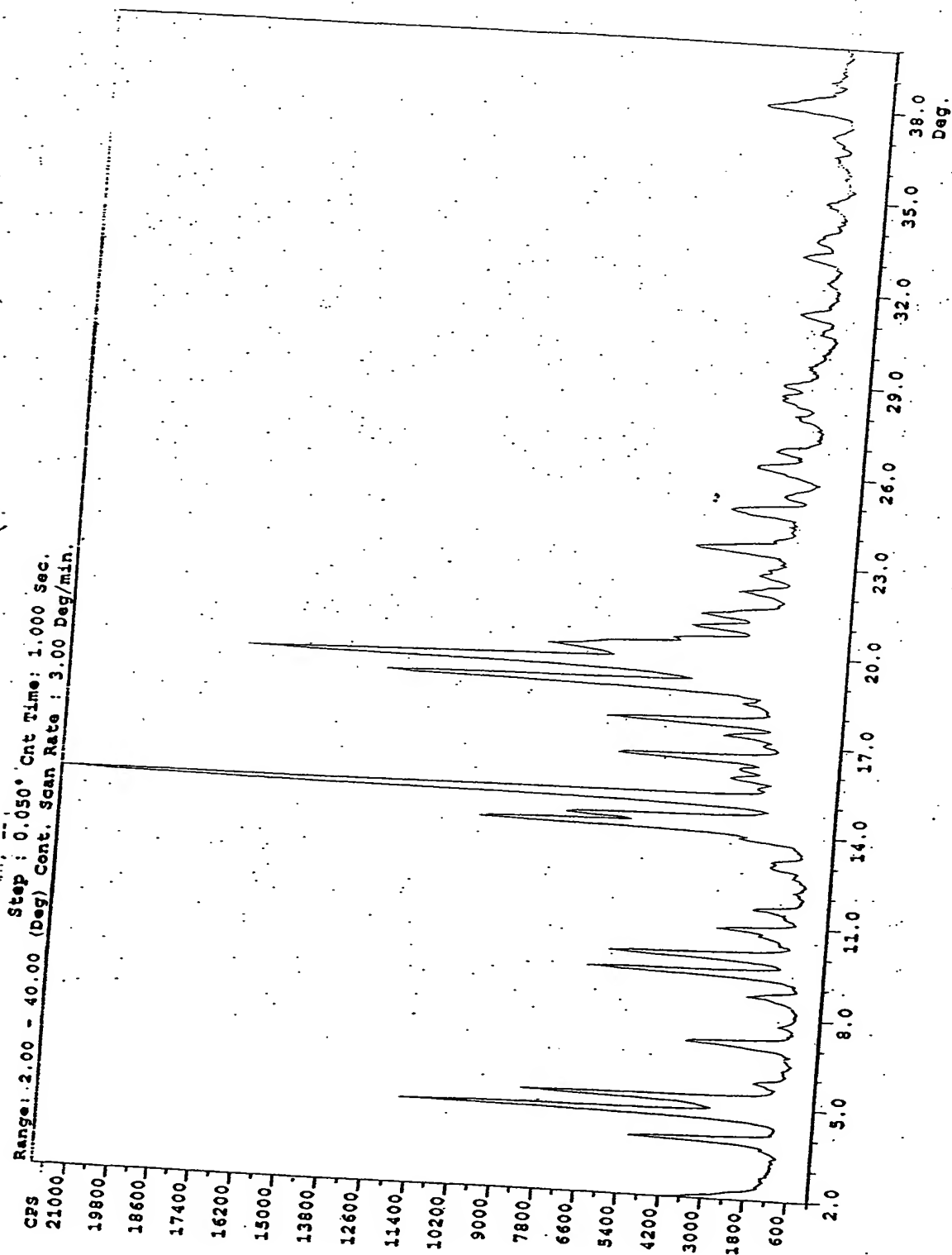


Fig. 6

G

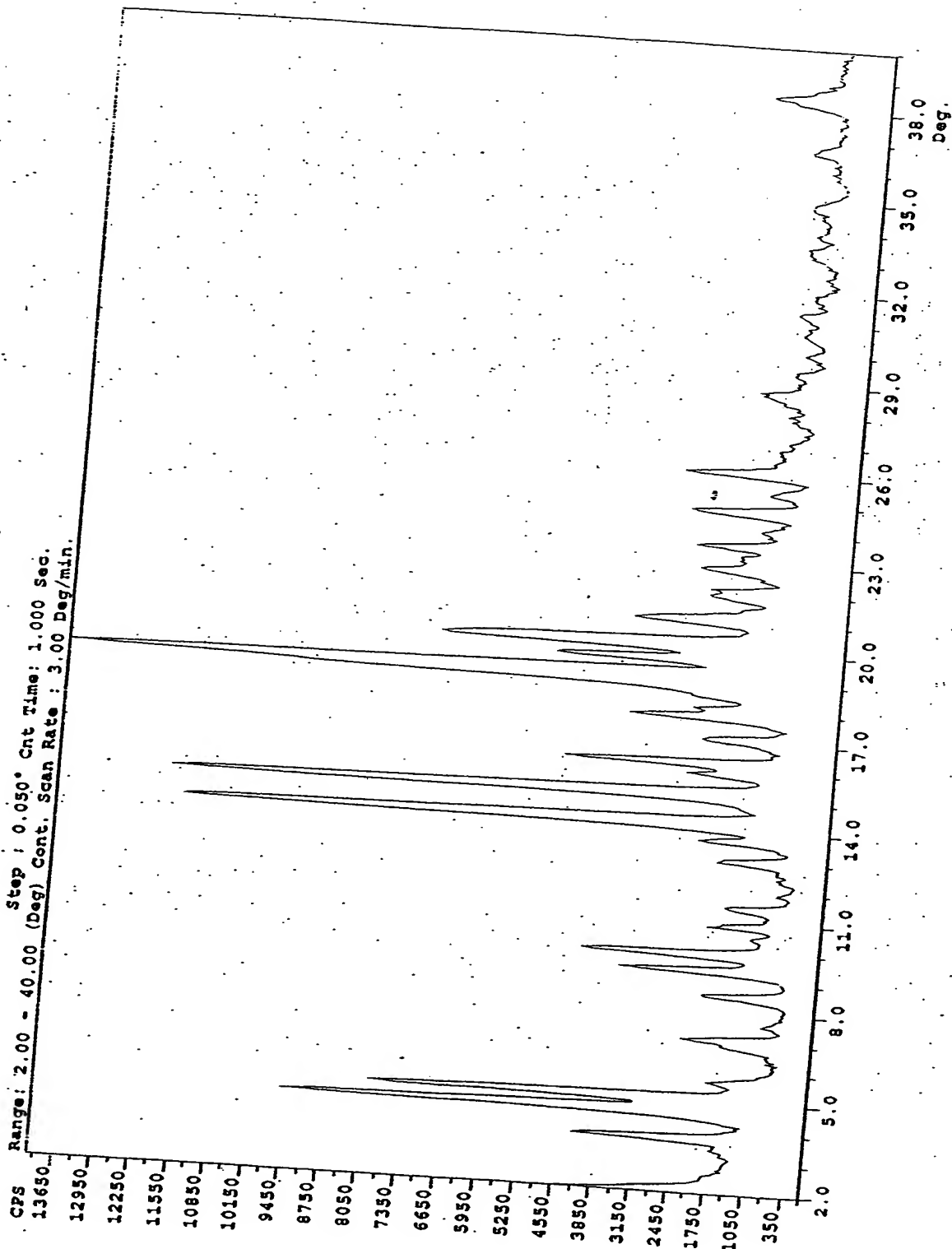


Fig 7 I

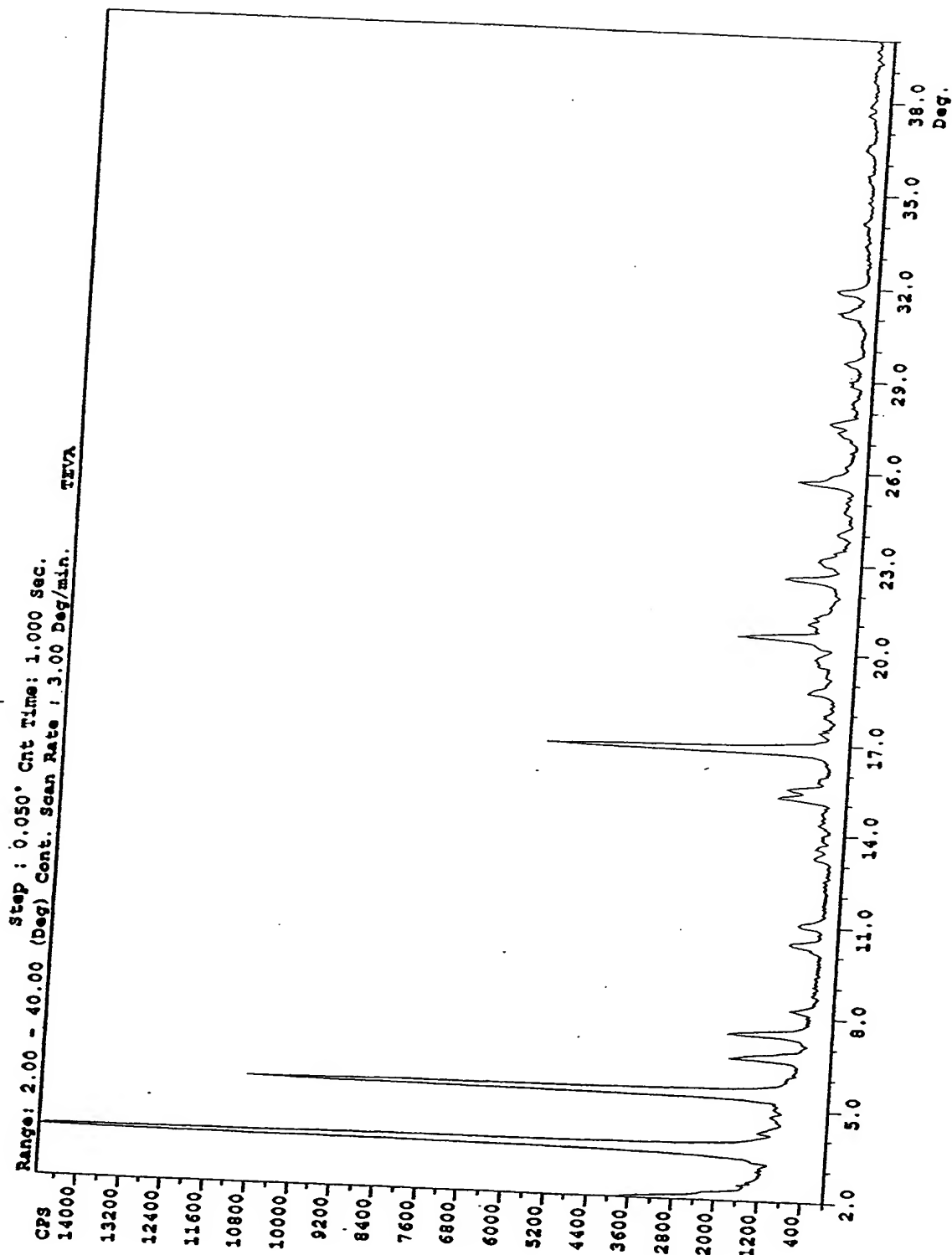




Fig. 8 5

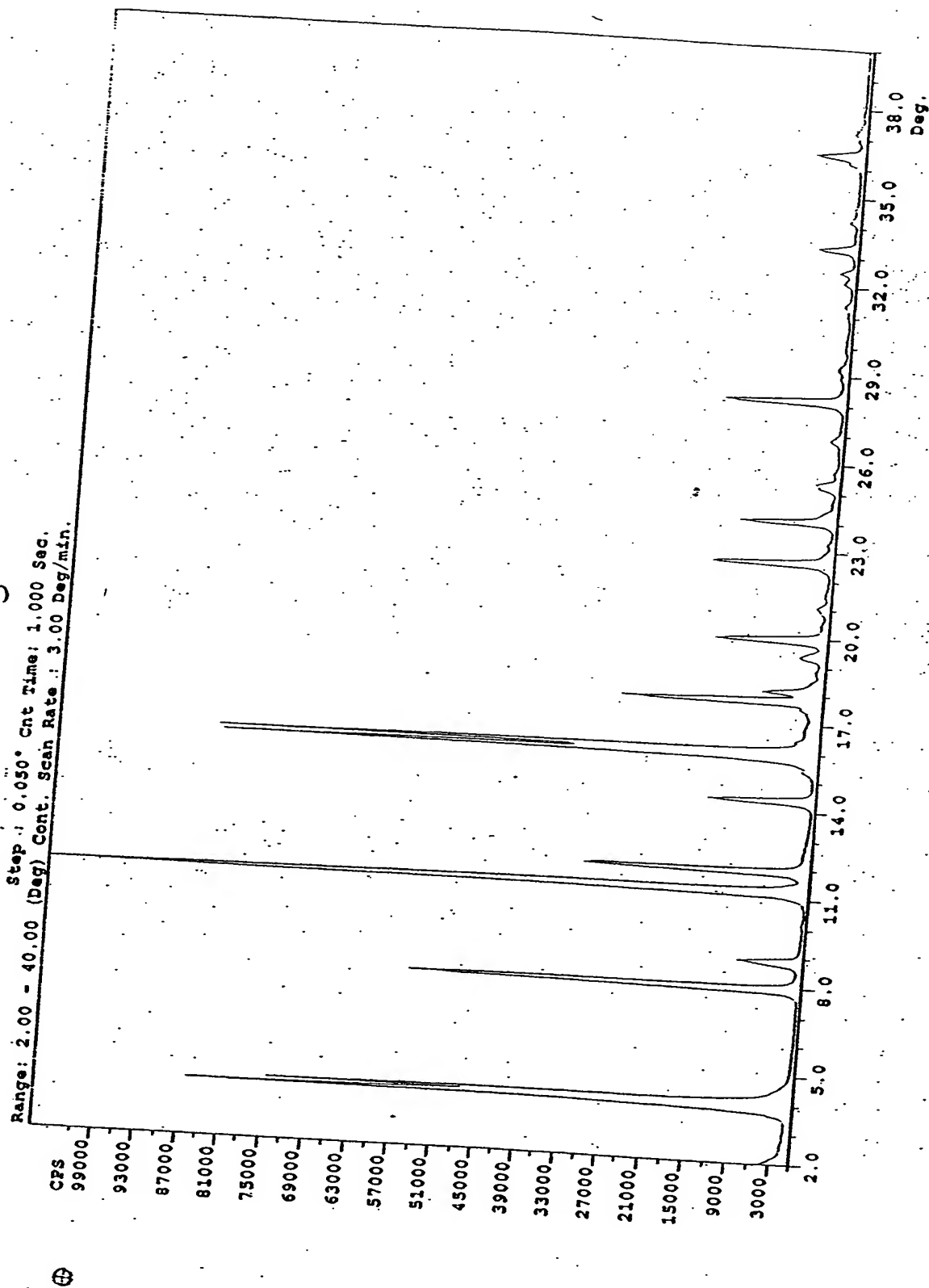


Fig. 9

K

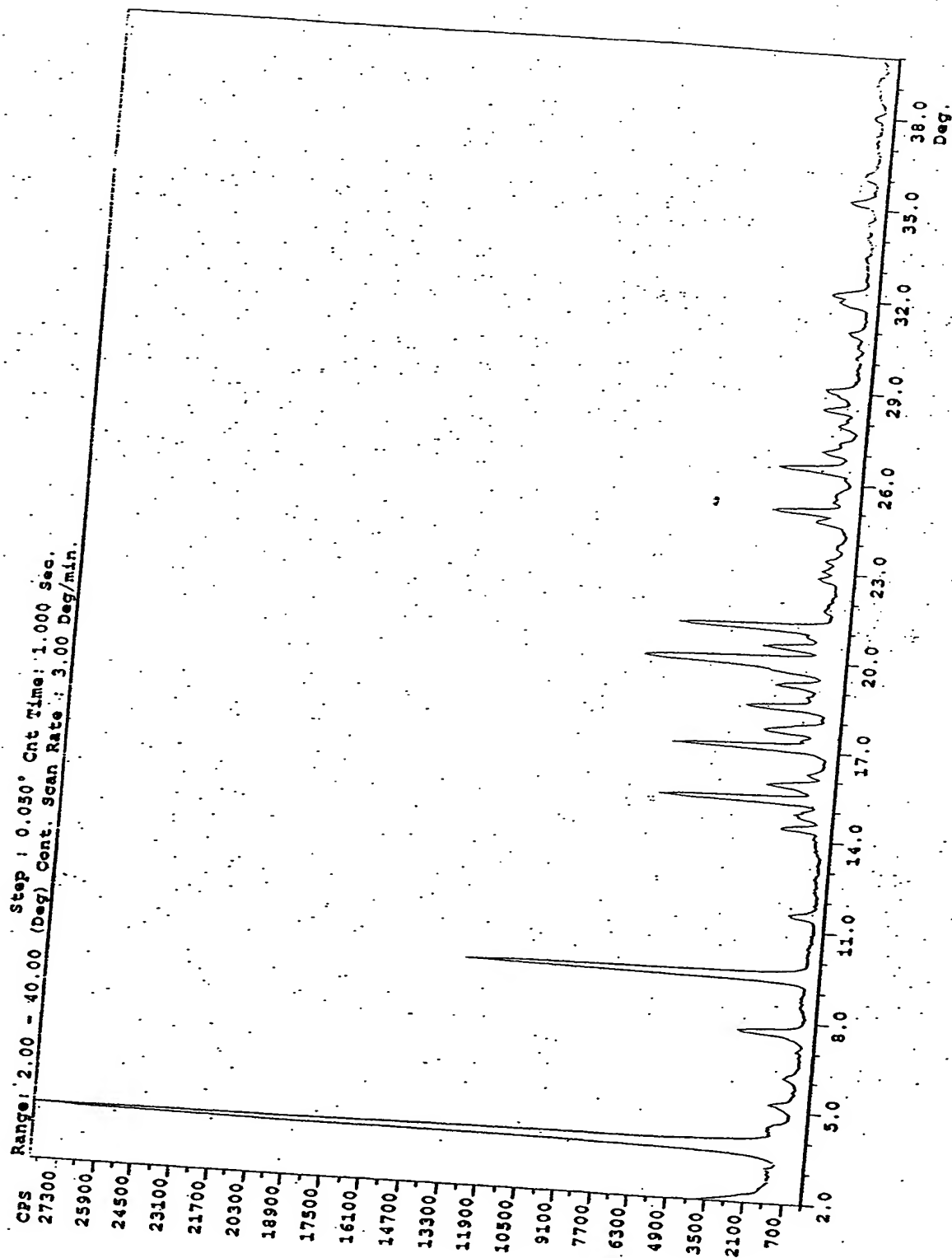


Fig. 10 L

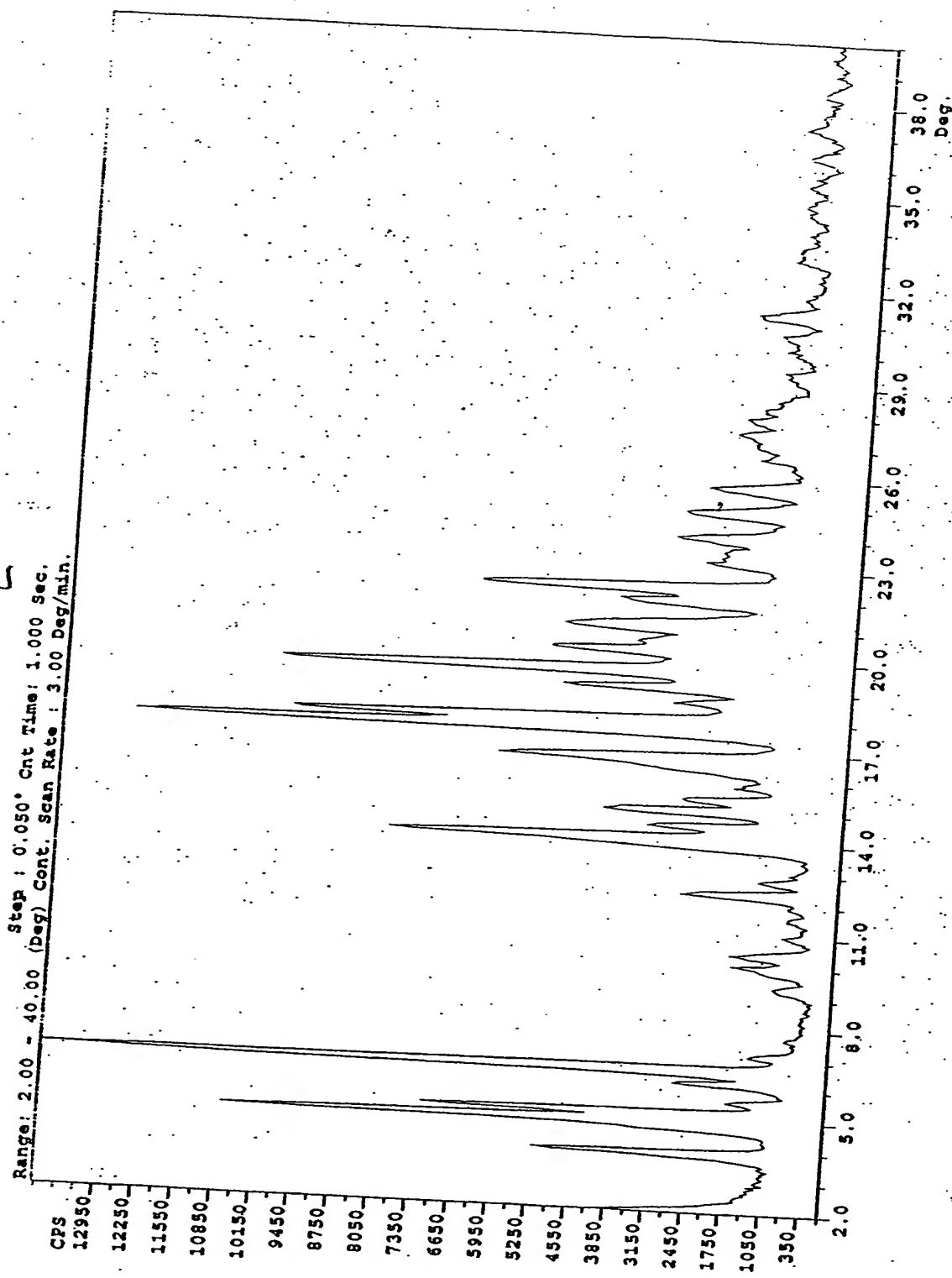
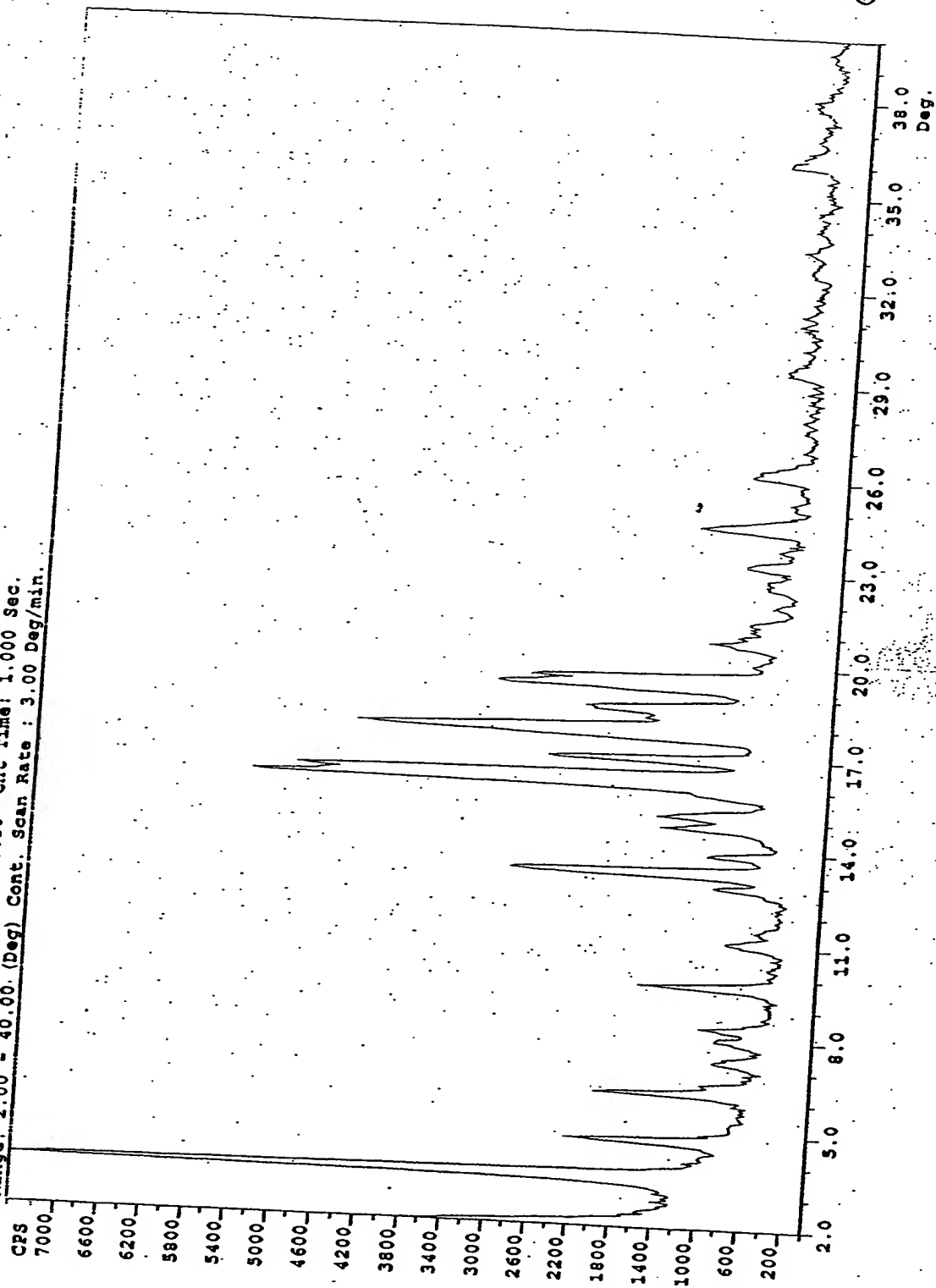


Fig. 11

M

Range: 2.00 - 40.00 (Deg) Step: 0.050° Cnt Time: 1.000 Sec.  
Cont. Scan Rate: 3.00 Deg/min.



⊕

Fig. 12

N

Range: 2.00 - 40.00 (Deg) Cnt Time: 1.000 Sec.  
Step: 0.050 (Deg) Cont. Scan Rate: 3.00 Deg/min.

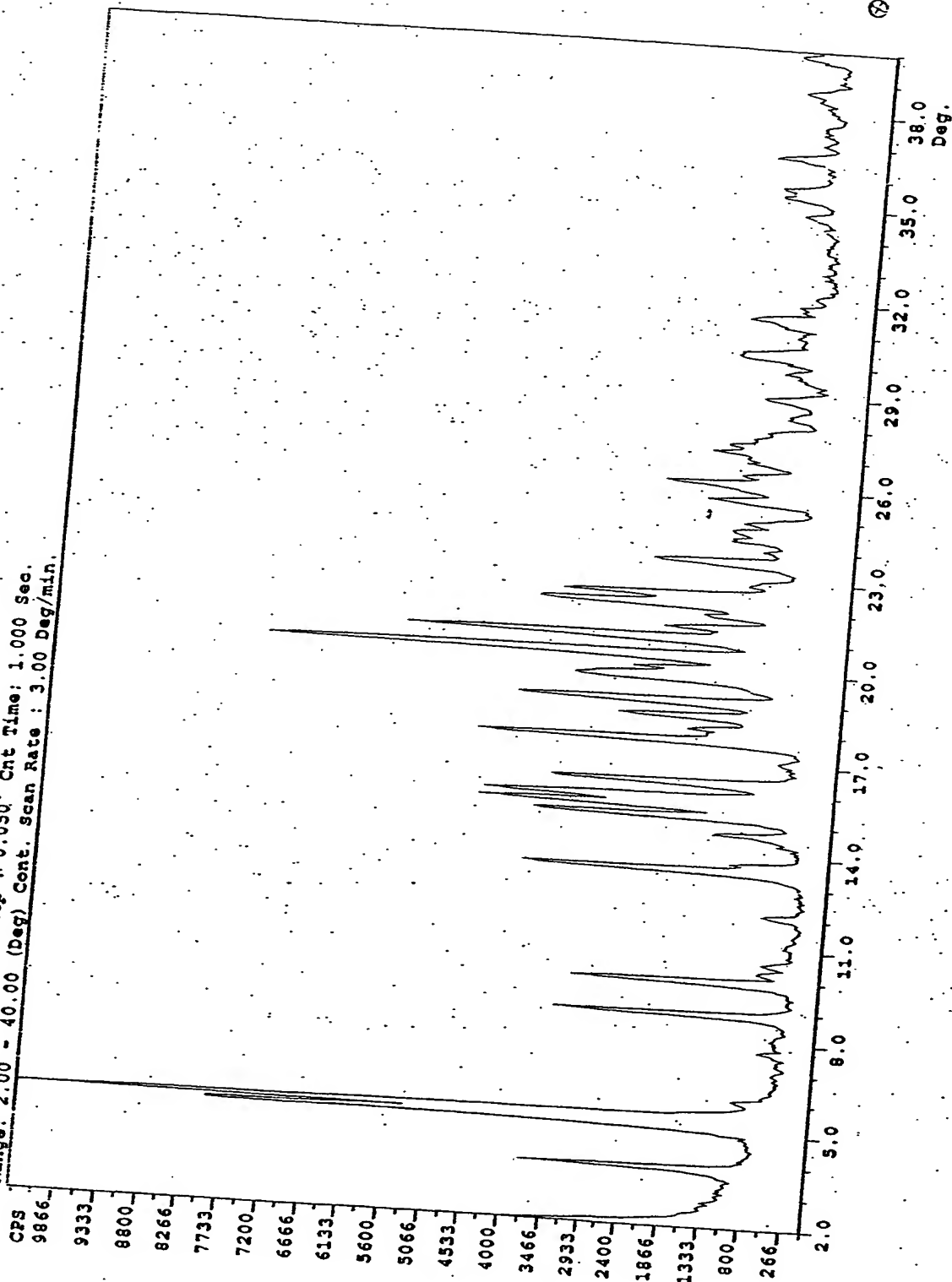


Fig. 13 0

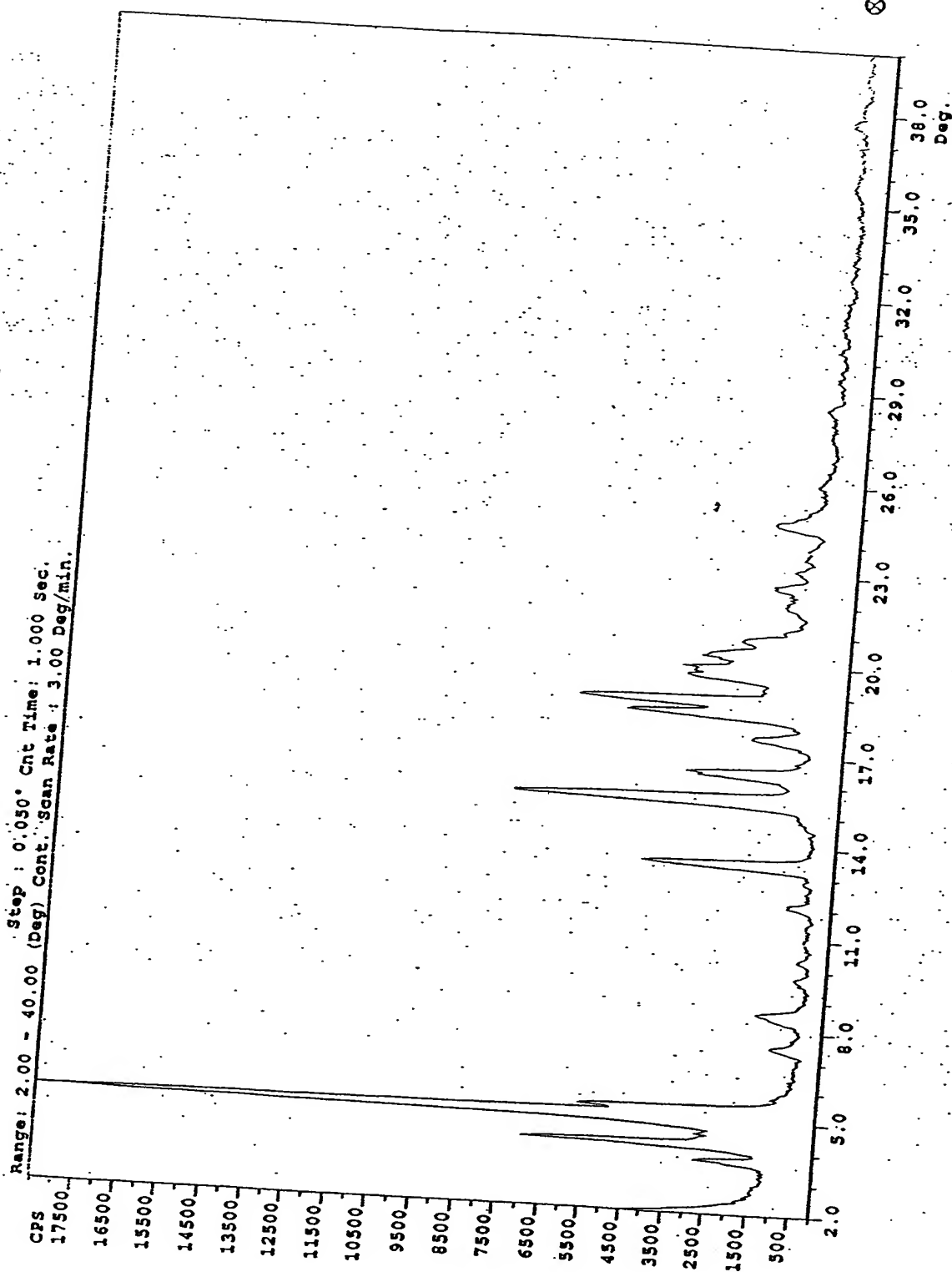


Fig. 14

P

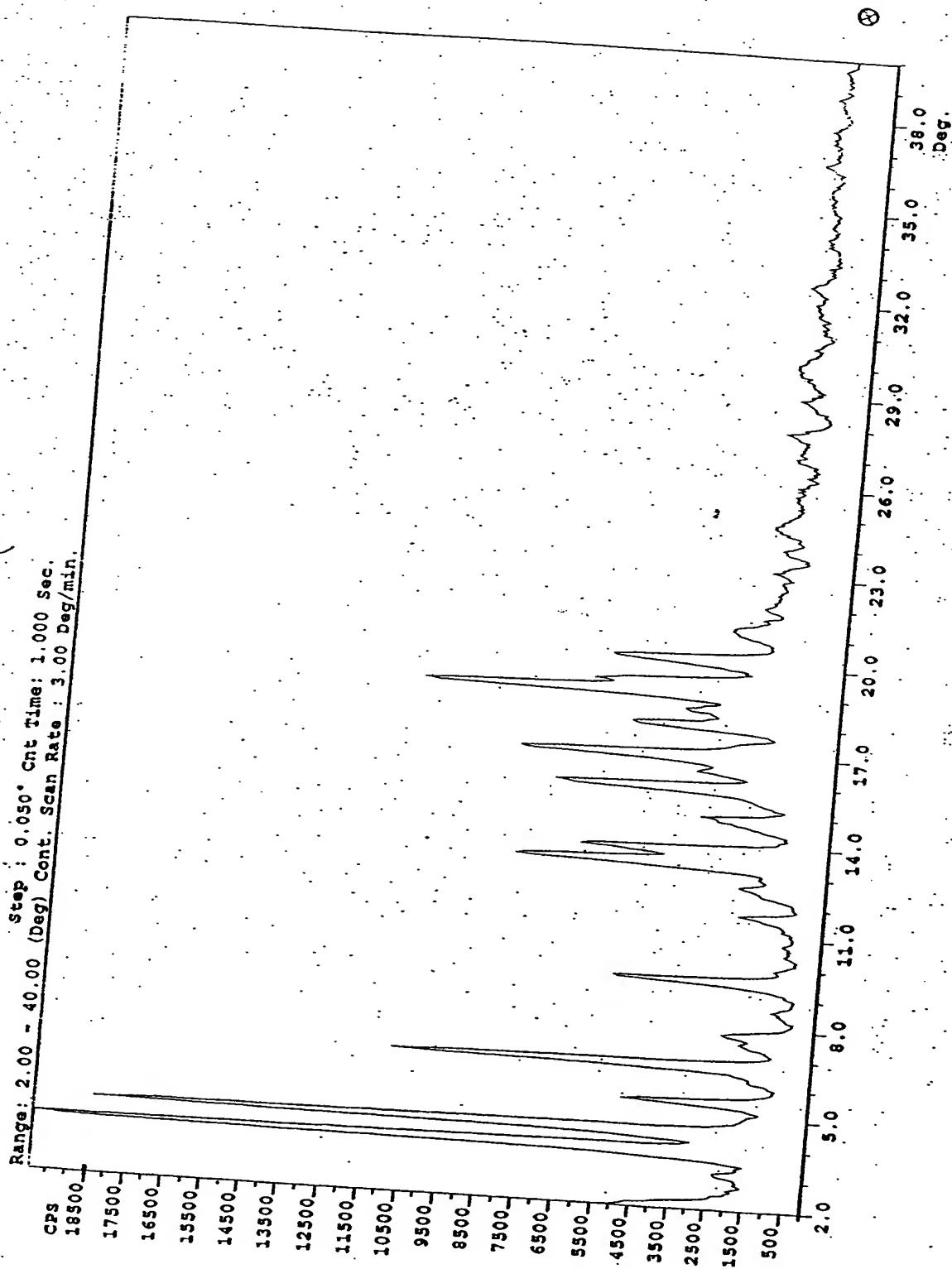


Fig. 15 Q

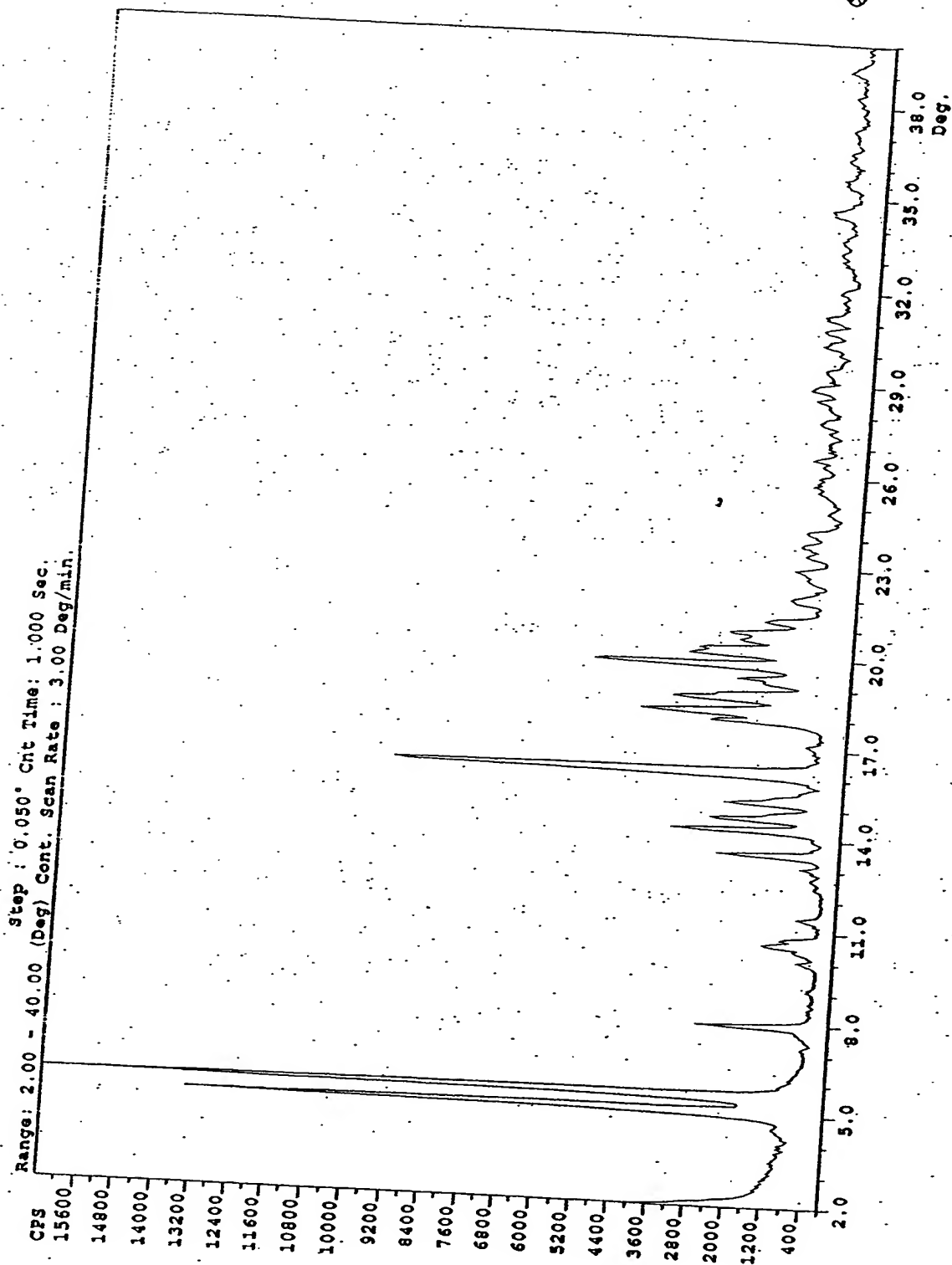




Fig. 16

T

Range: 2.00 - 40.00 (Deg) Cnt Time: 1.000 Sec.  
Step: 0.050 (Deg) Cnt. Scan Rate: 3.00 Deg/min.

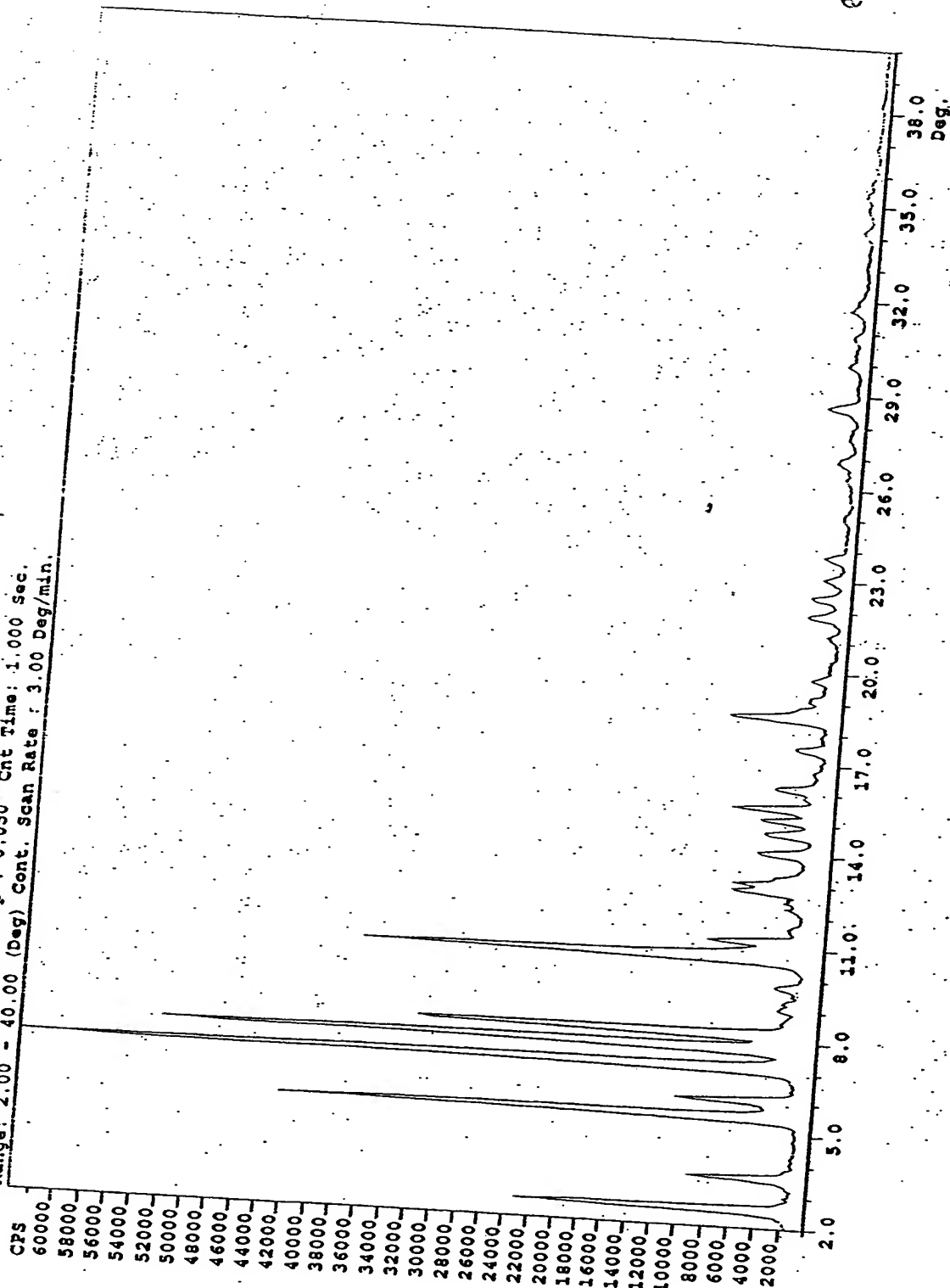


Fig. 17 u

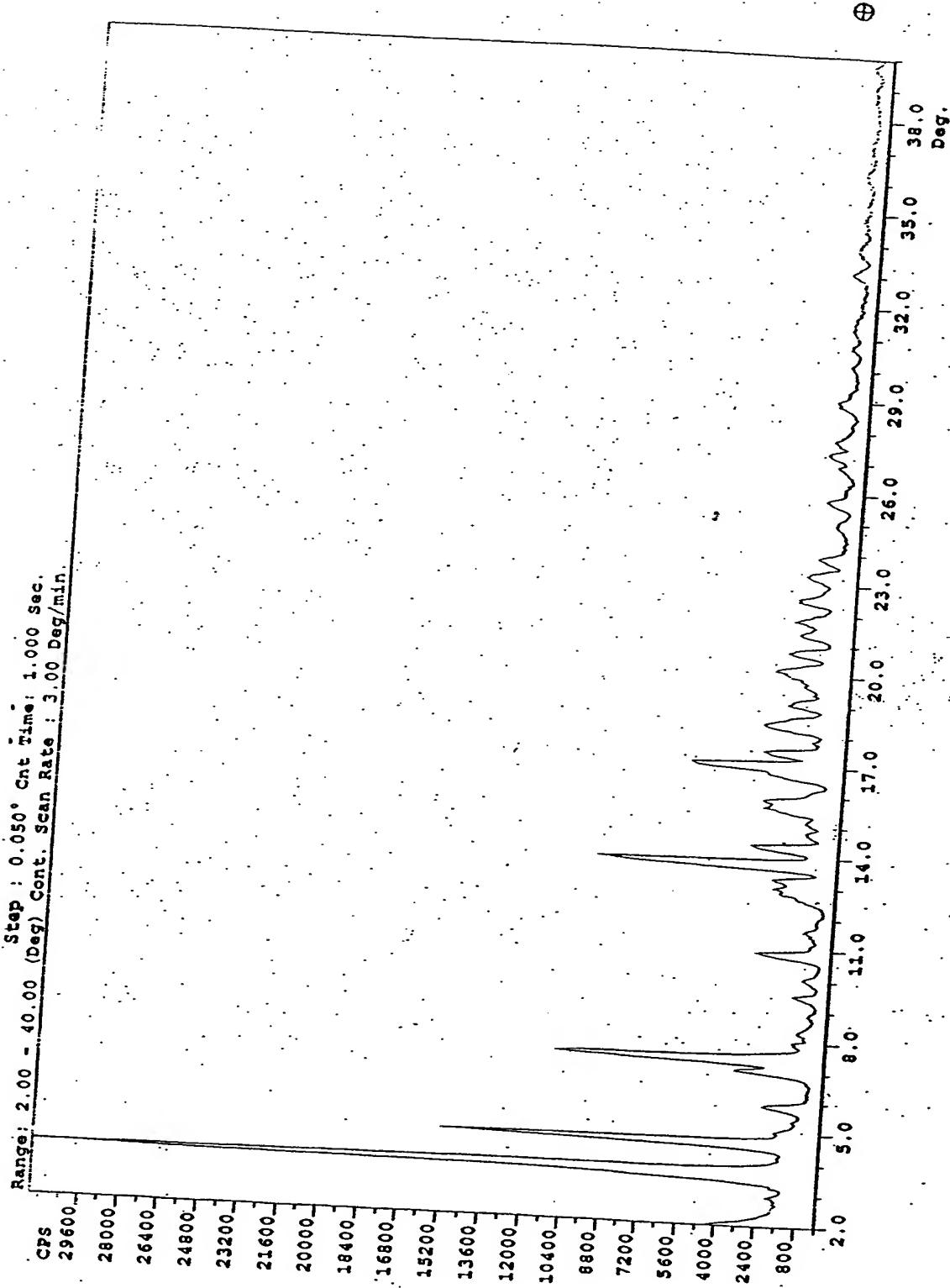


Fig. 18

✓

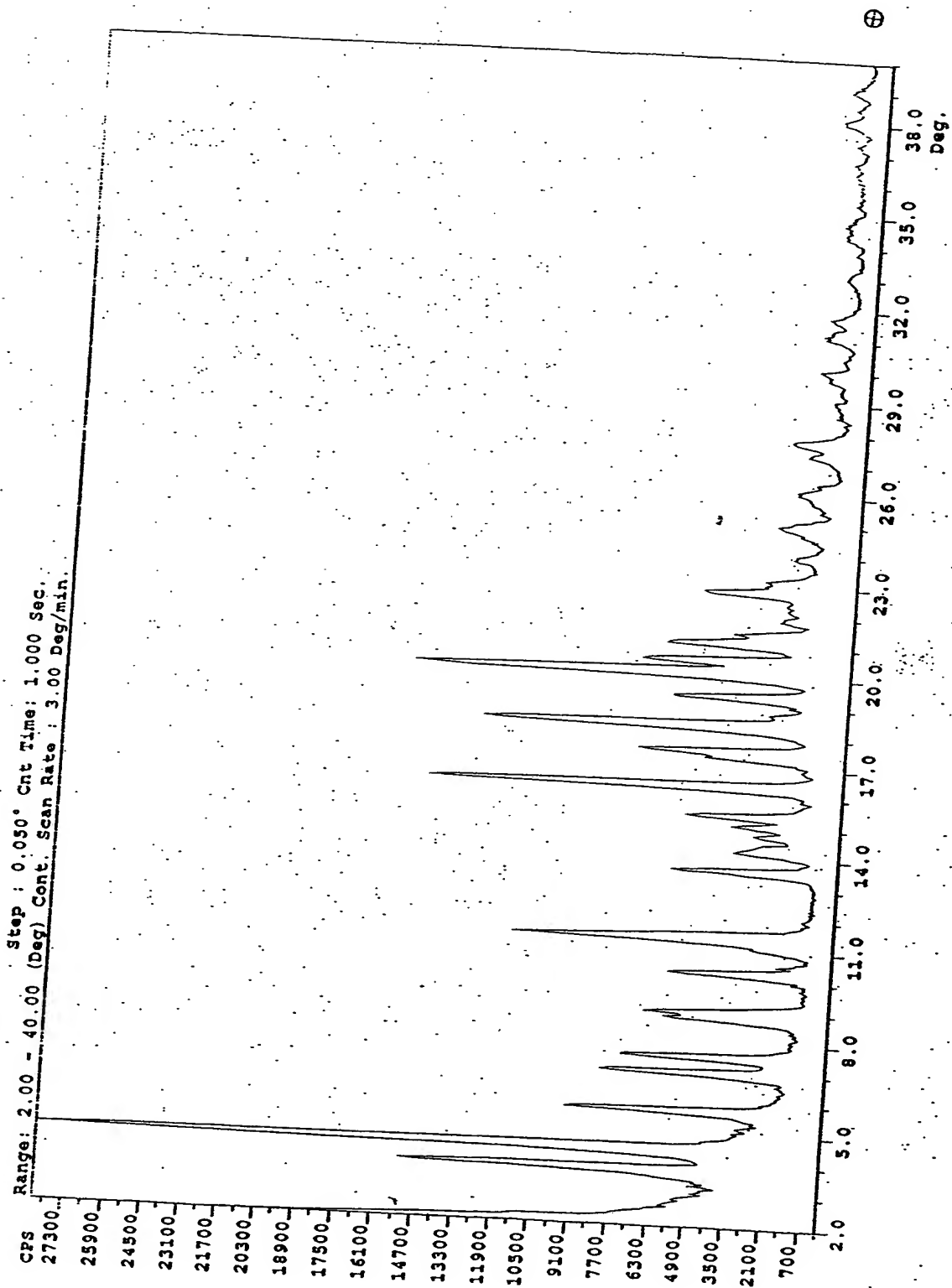


Fig 19  $\gamma$

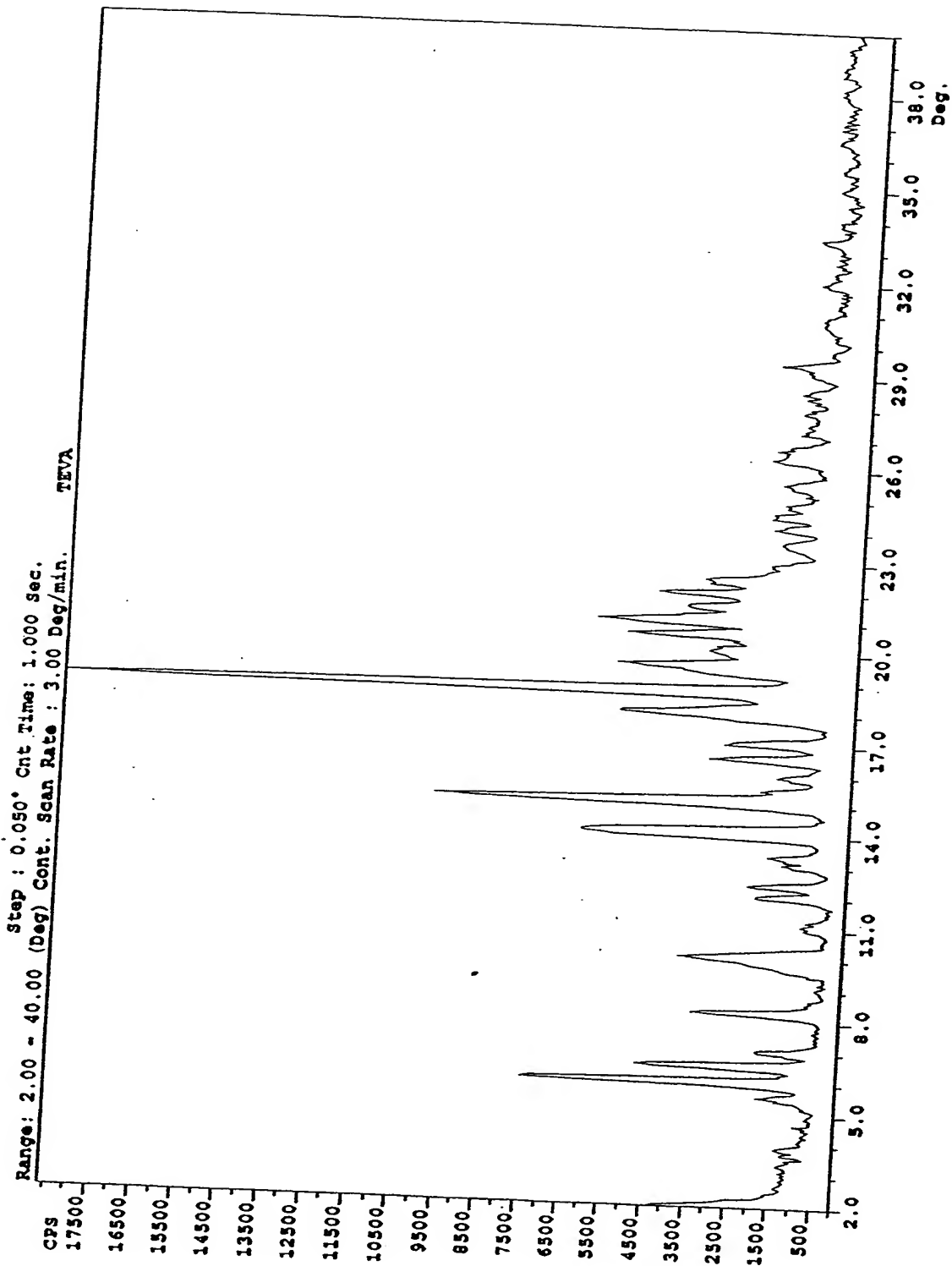


Figure 20 - Nateglinide Form Z

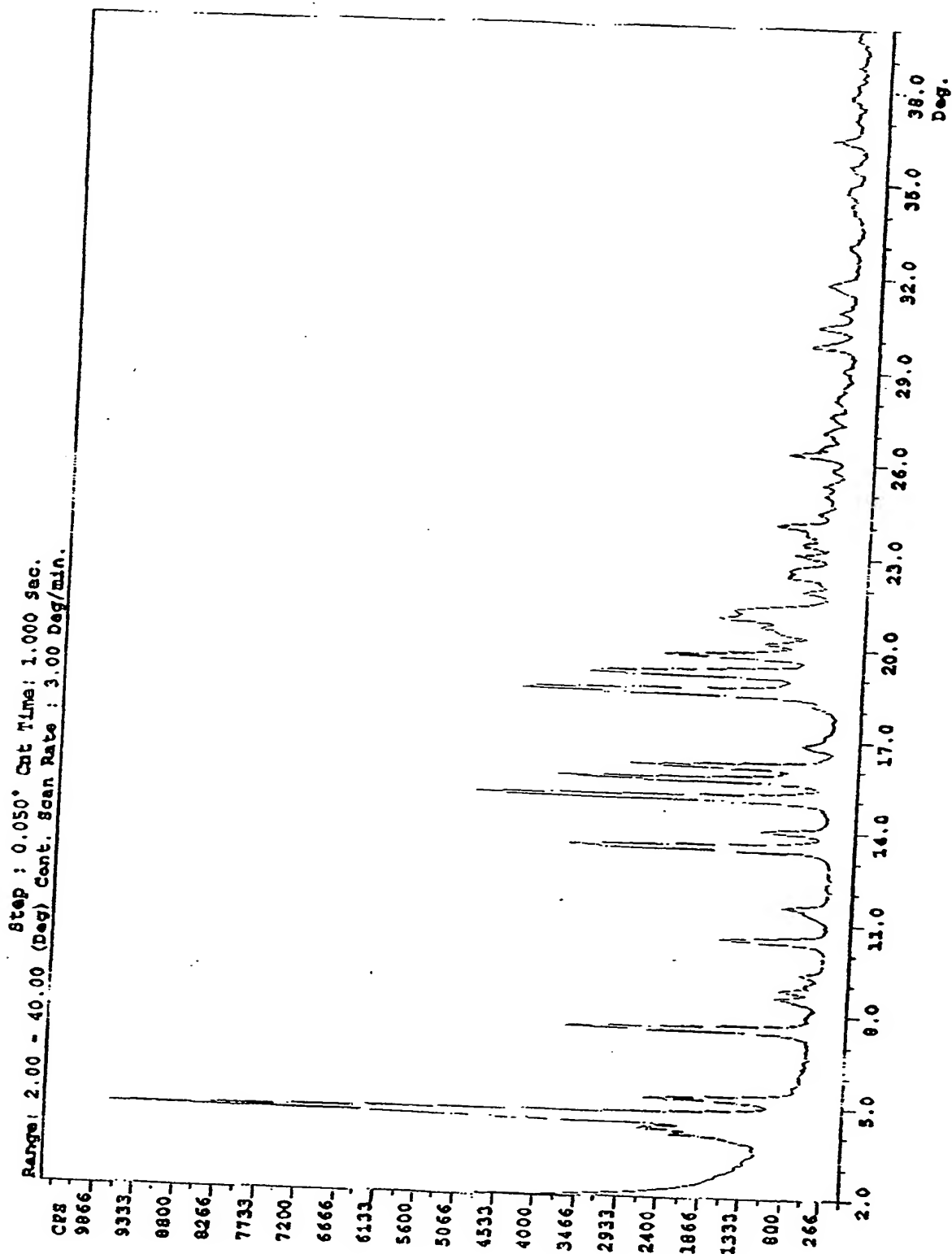


fig 2b x

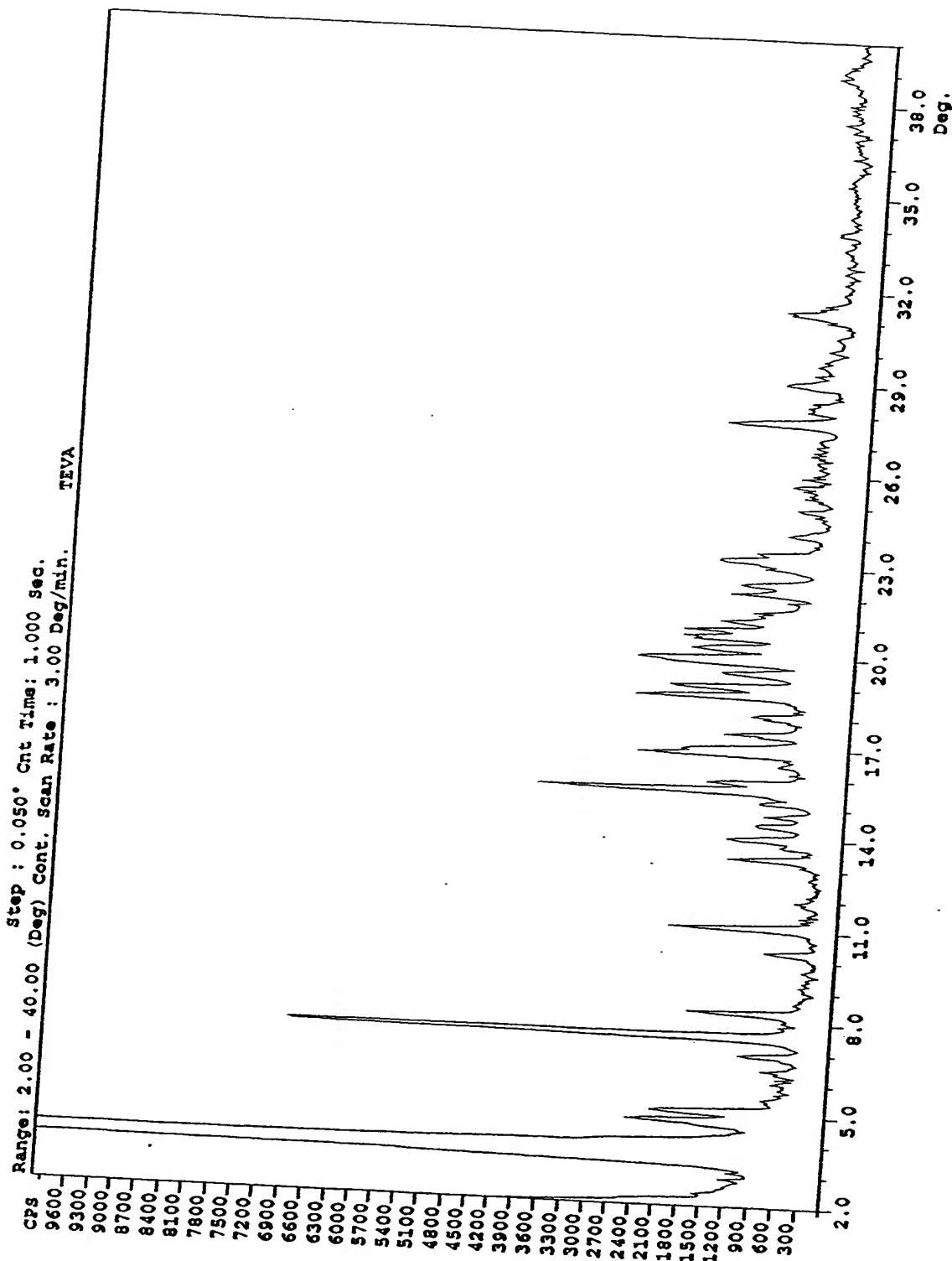


Fig. 22 B

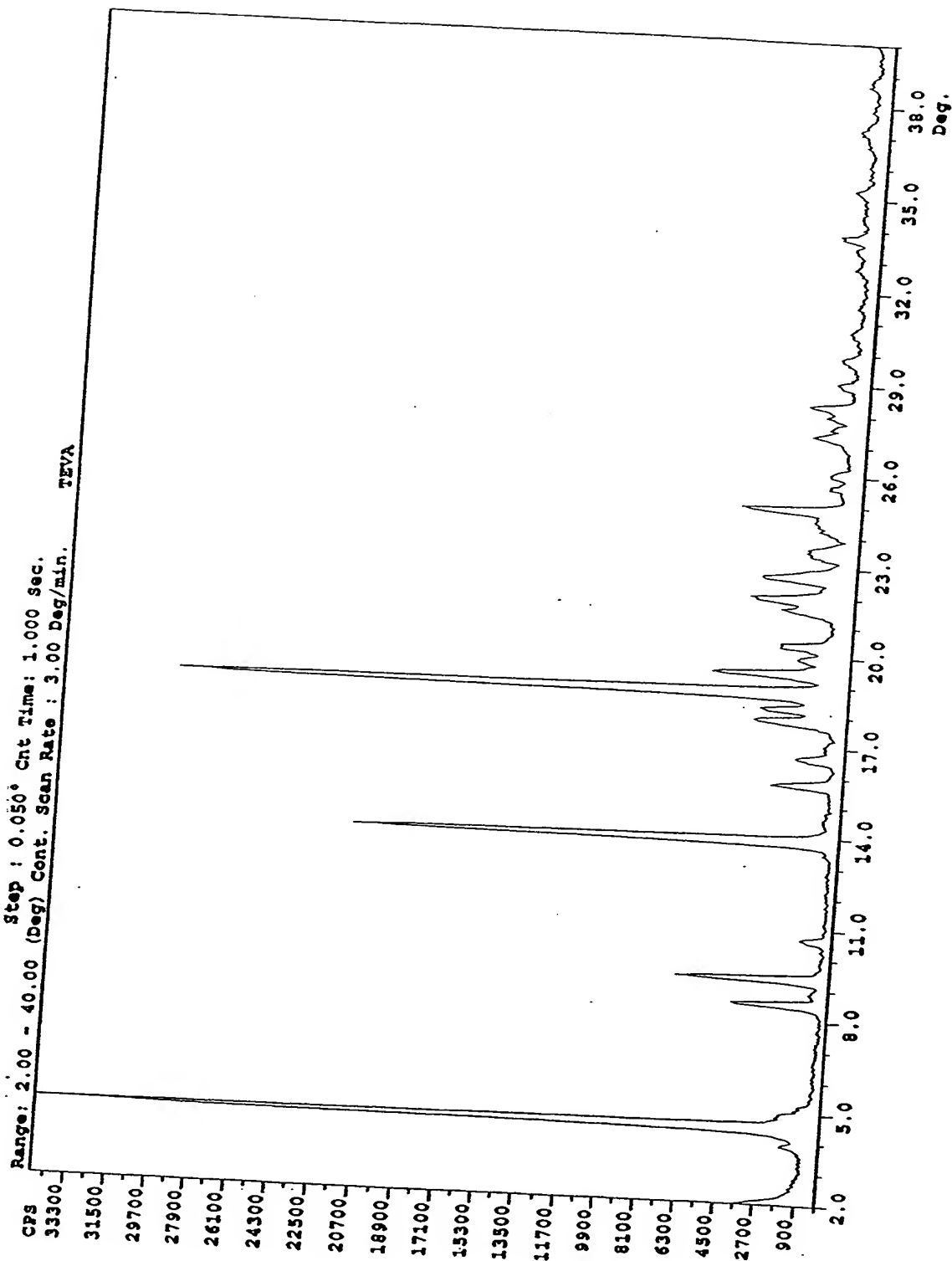


Fig 23 10

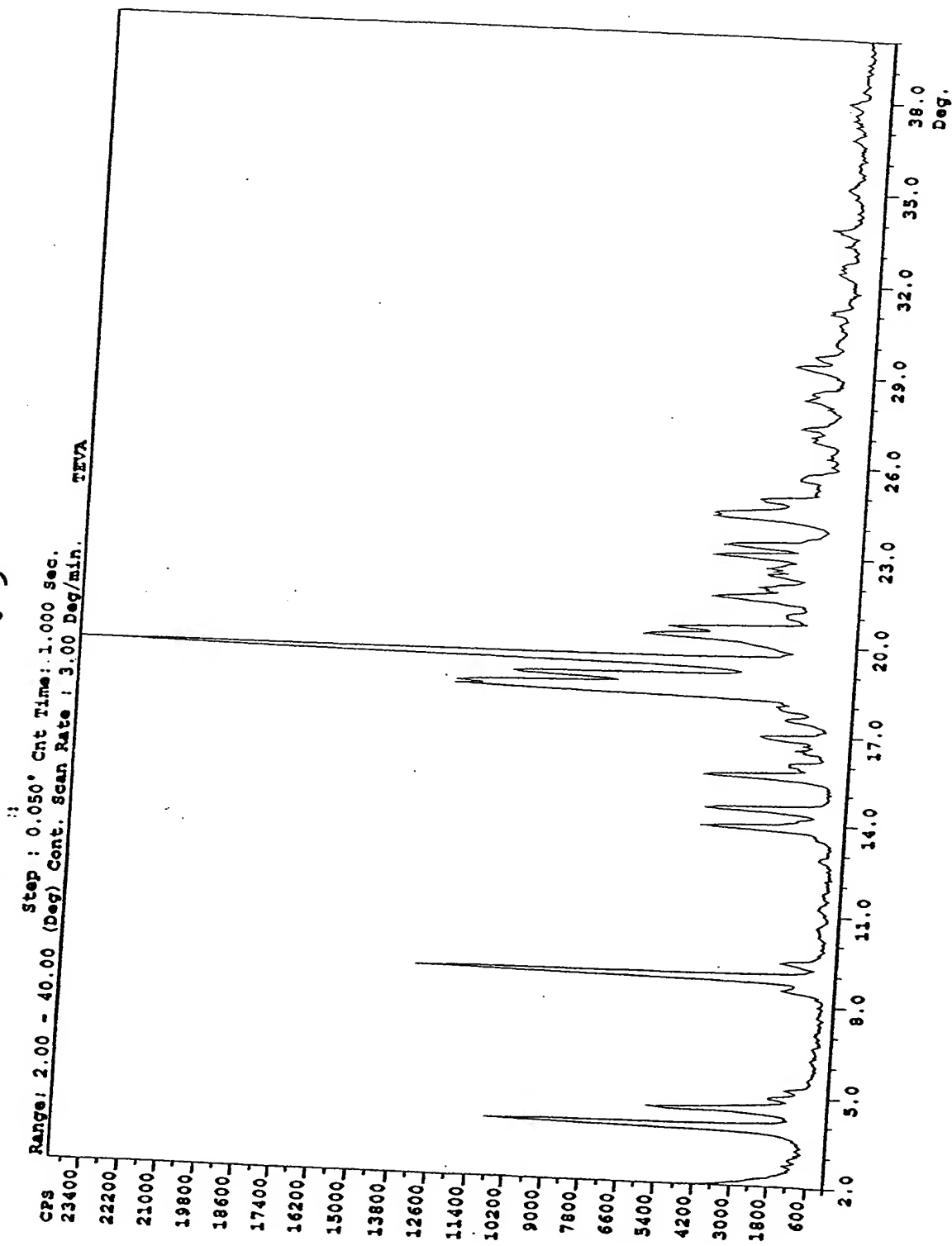




Fig 24

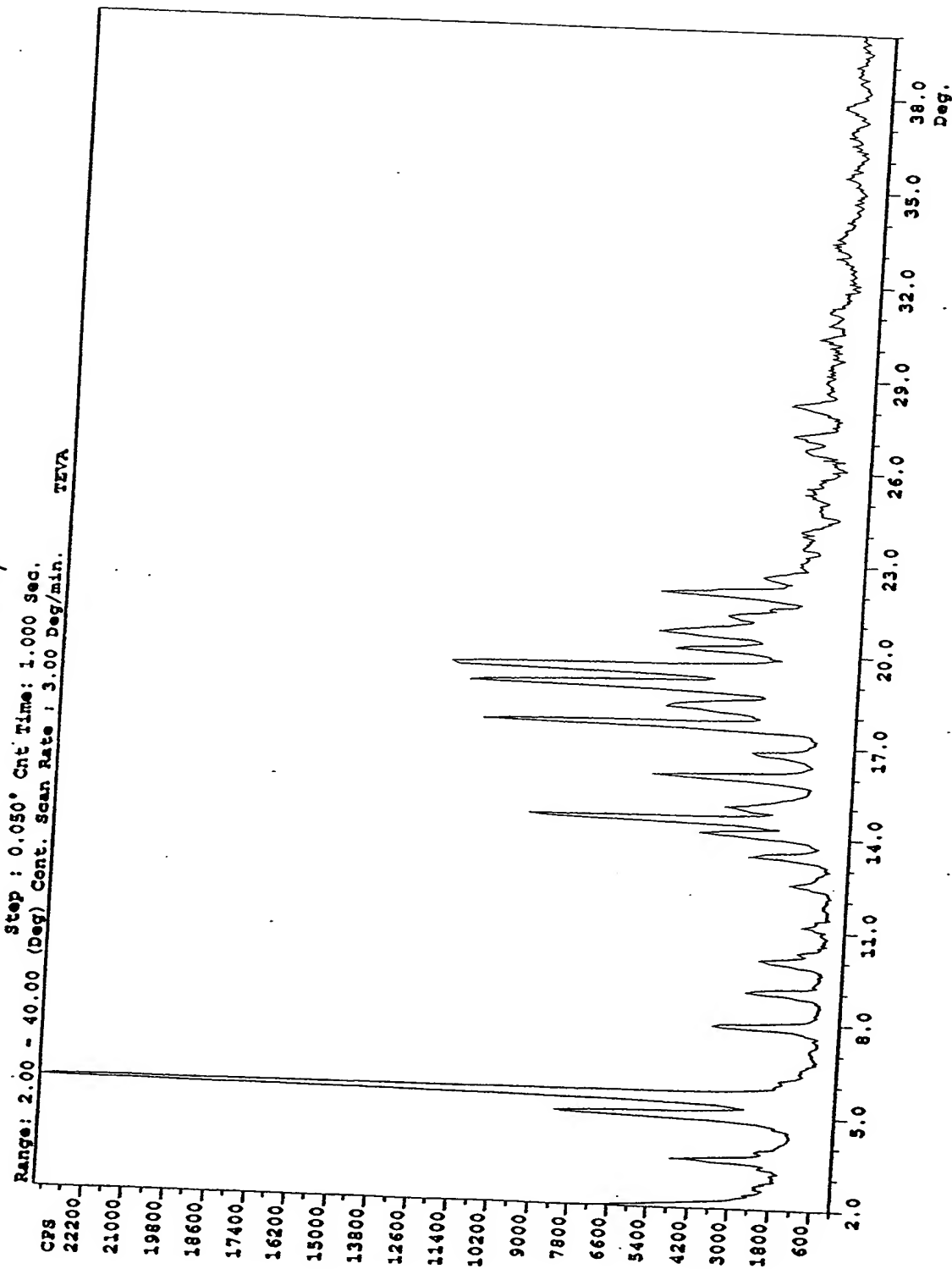


Fig 25

3

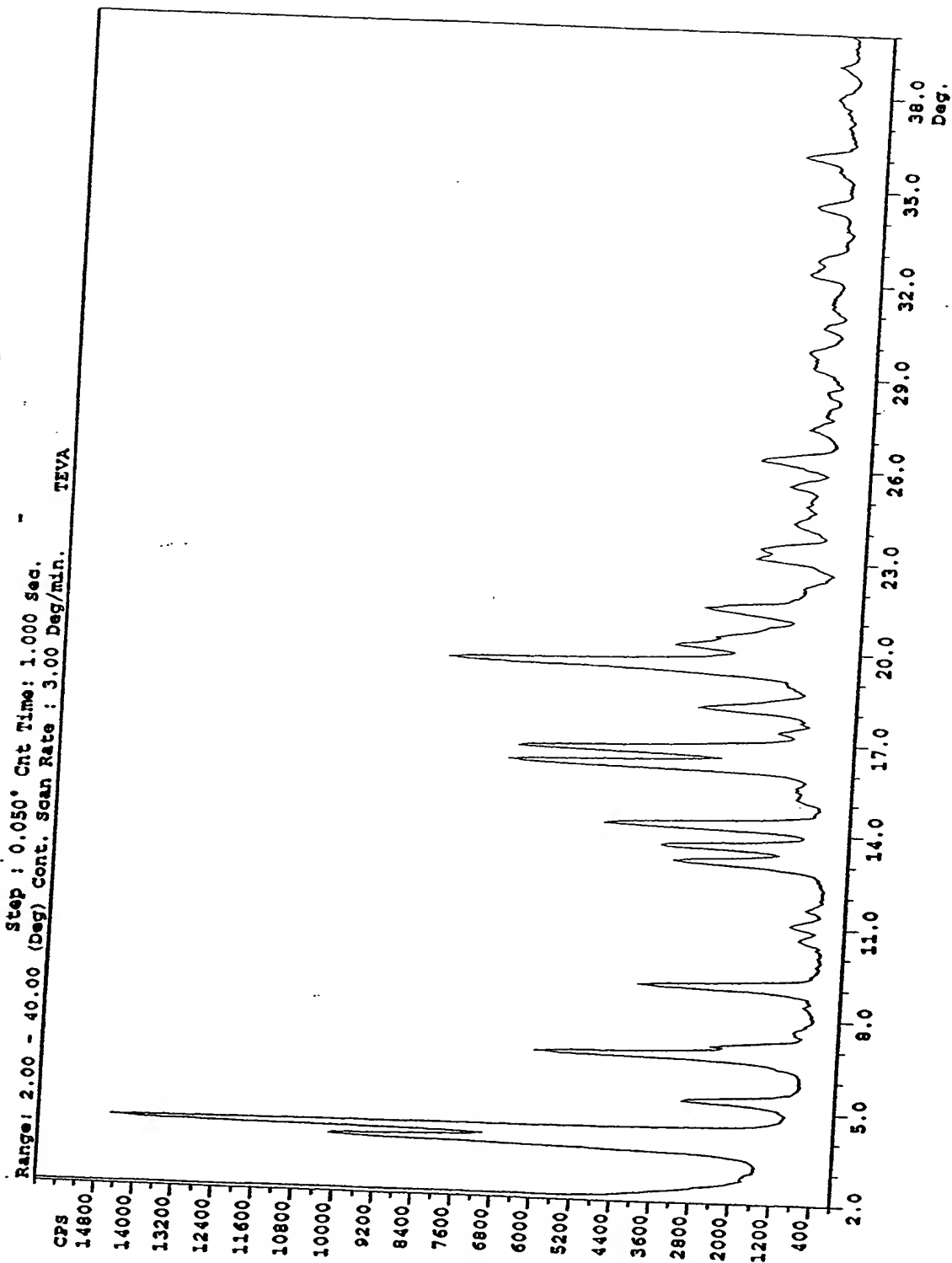
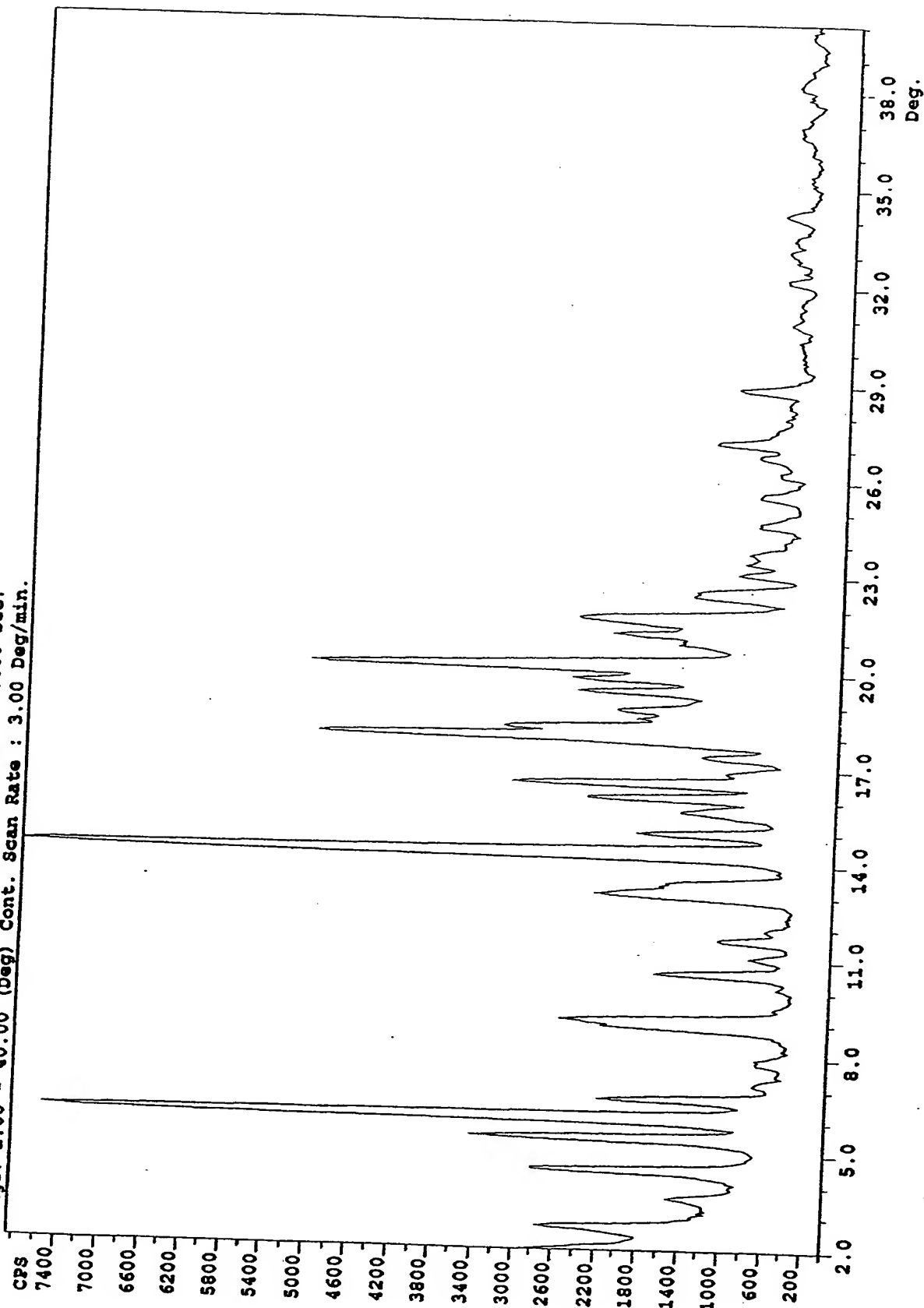


FIGURE 26

Sigma

Range: 2.00 - 40.00 (Deg) Cnt Time: 1.000 Sec.  
Step: 0.050° Cnt Rate: 3.00 Deg/min.



Form (5)

FIGURE 23

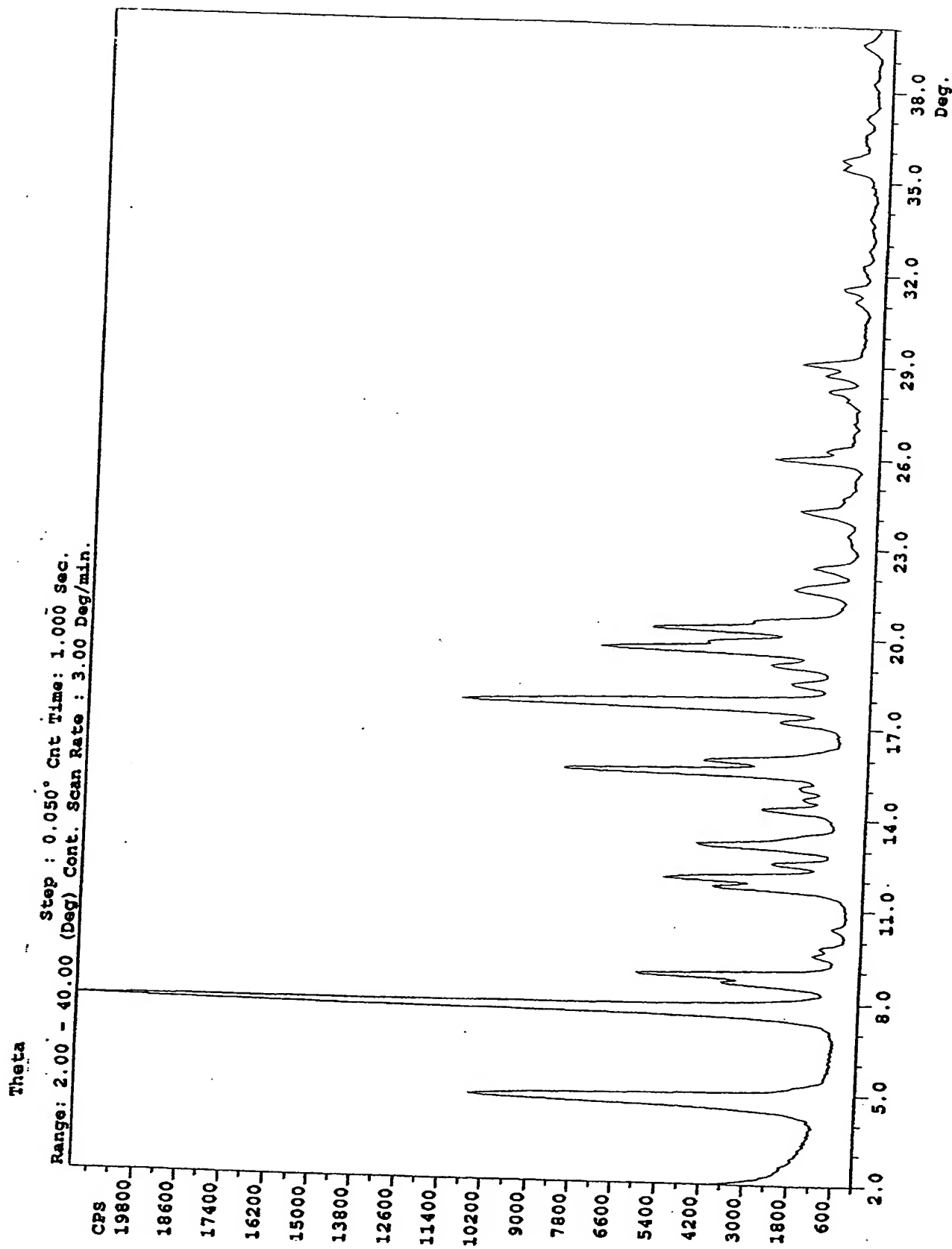
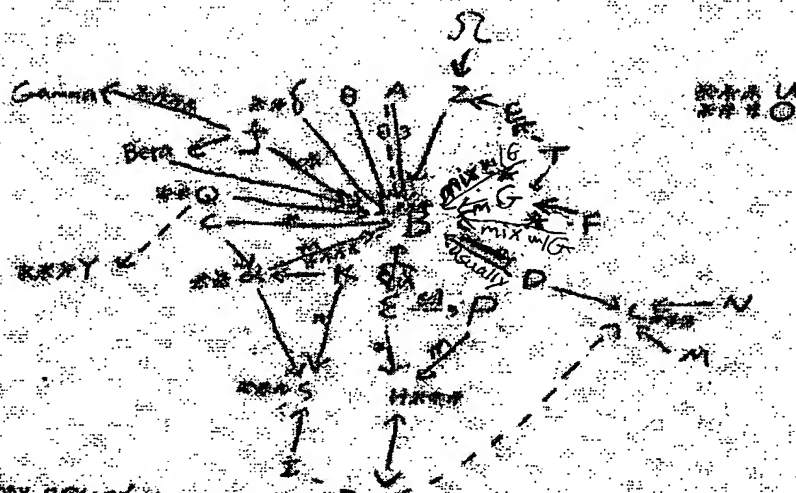
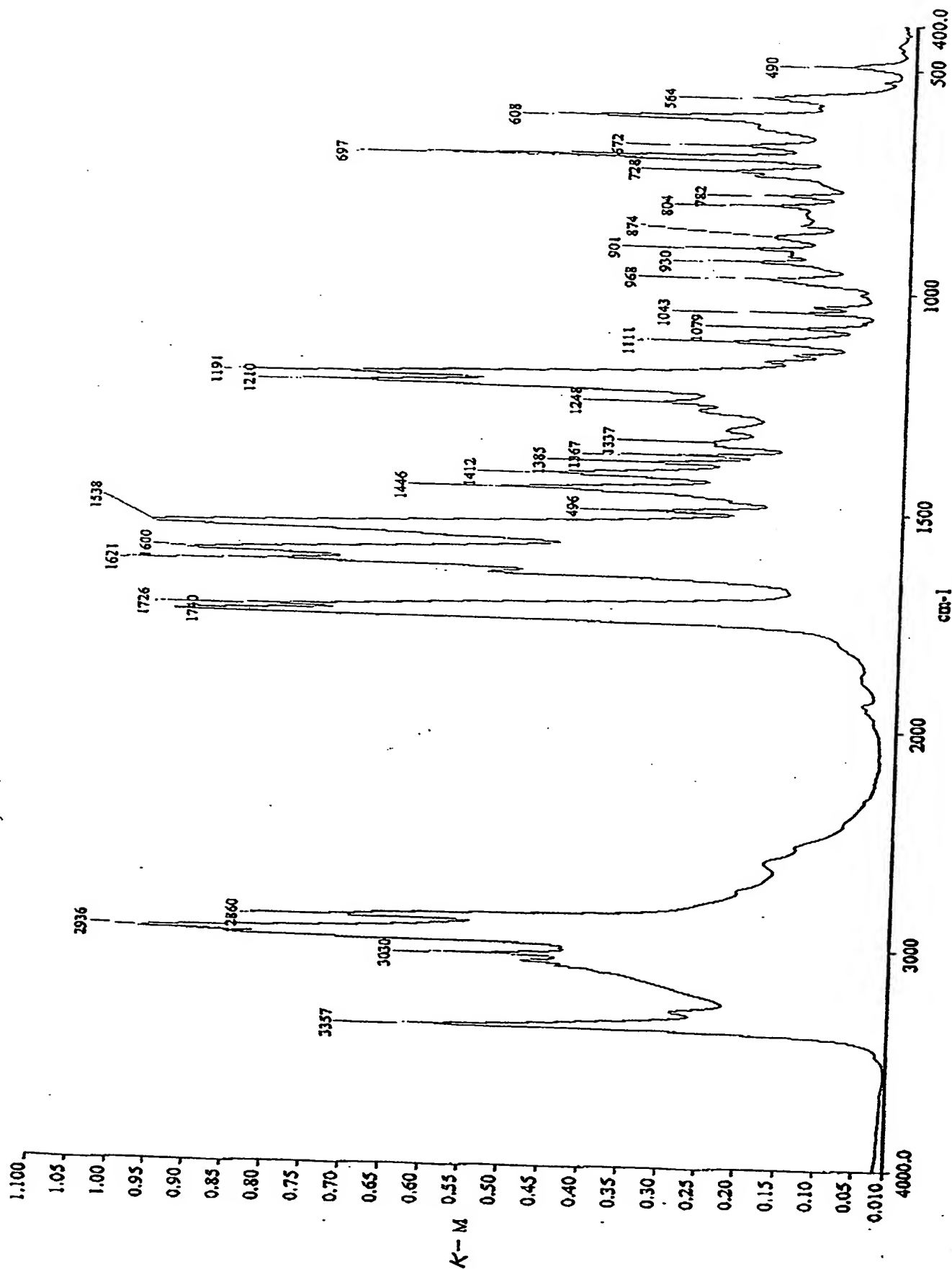


Figure 28 - Thermal stability chart



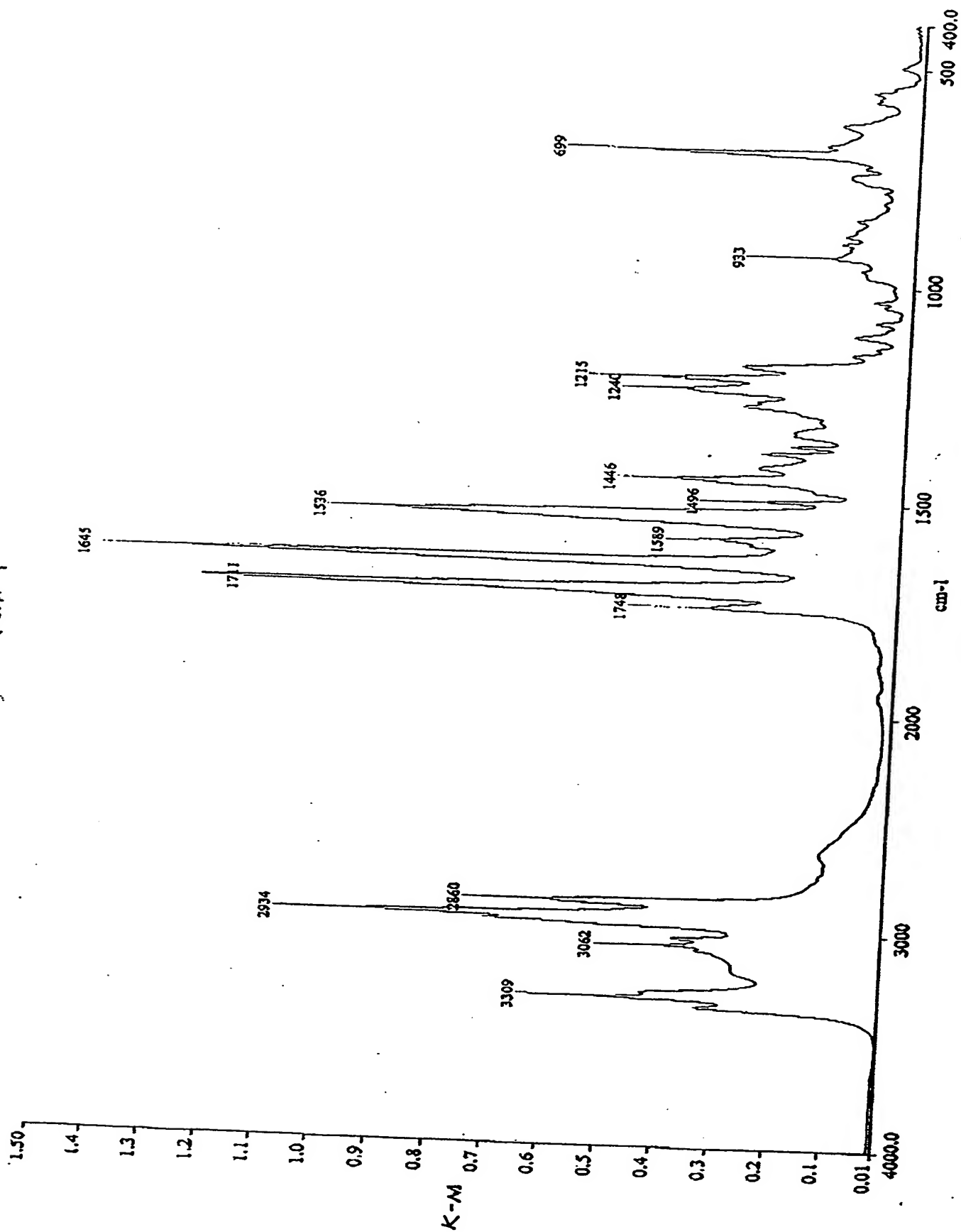
- \* Transformation may proceed through another form
- Thermally stable at lower heating temperatures ( $\sim 50^\circ\text{C}$ )
- Thermally stable forms
- Transformation after storage at room temperature
- Mixture with starting form
- When starting material contains seeds.
- sol Results might vary depending on the solvate of Form Epsilon used.

FIGURE 29  
Form 2



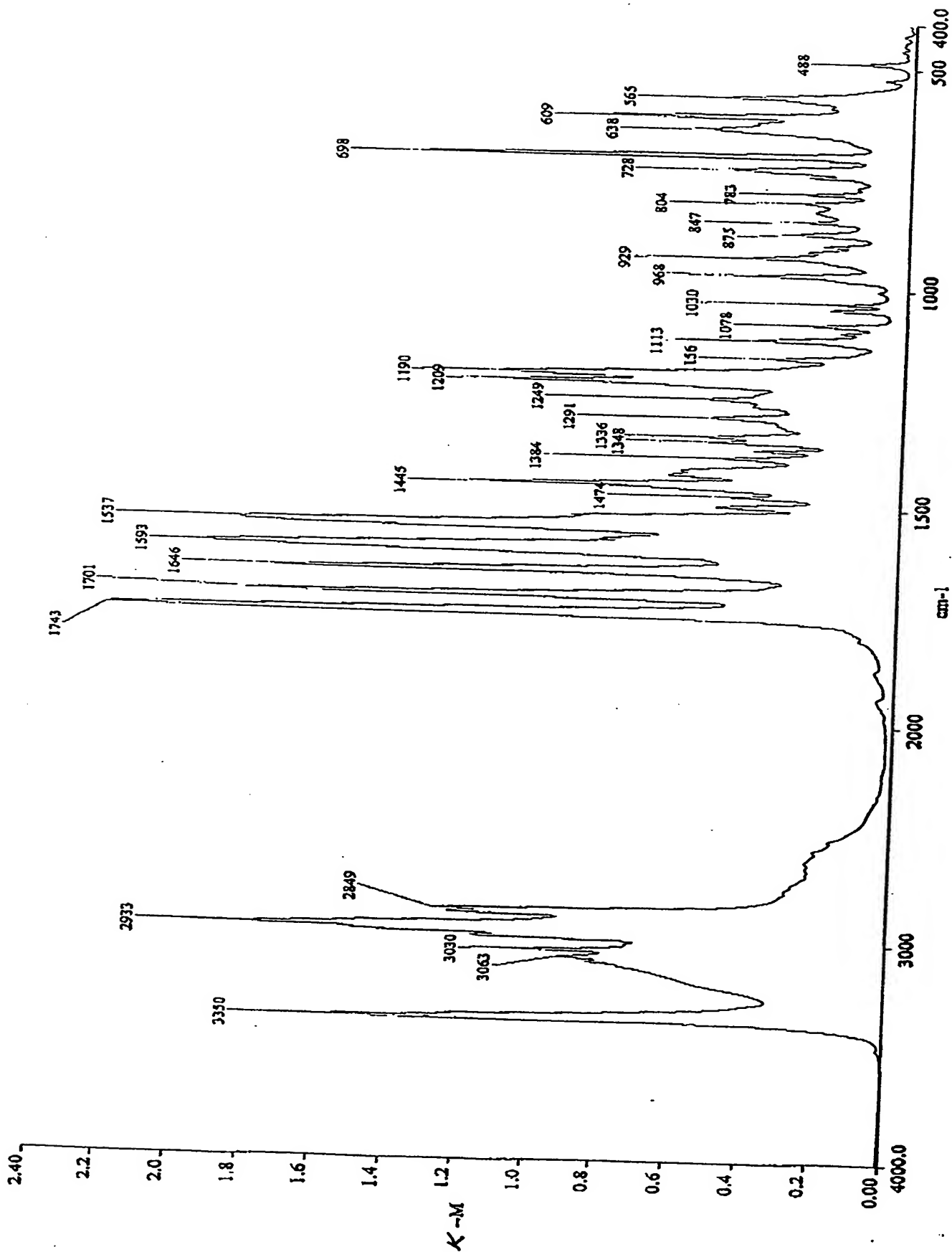
-DRIFT, 4000-400 CM-1, 16 scans, Resolution: 4.00cm-1

FIGURE 30  
- Form P



DRIFT, 4000-400  $\text{cm}^{-1}$ , 16 scans, Resolution: 4.00  $\text{cm}^{-1}$

FIGURE 30  
Form U



-DRIFT, 4000-400cm-1, 18 scans, resolution: 4.0cm-1



Figure 32 - Nateglinide Form Z

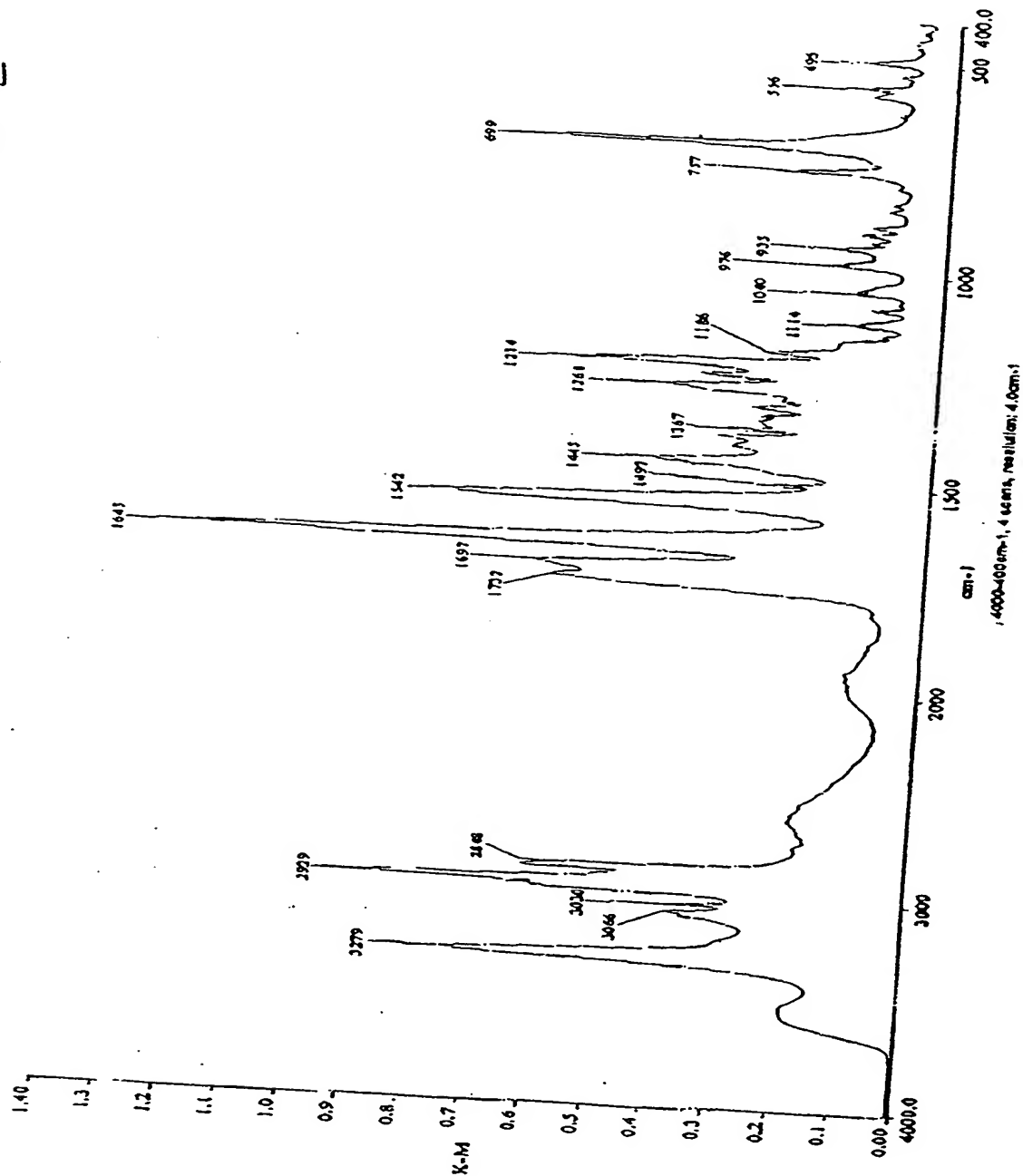


FIGURE 3.3  
Form α

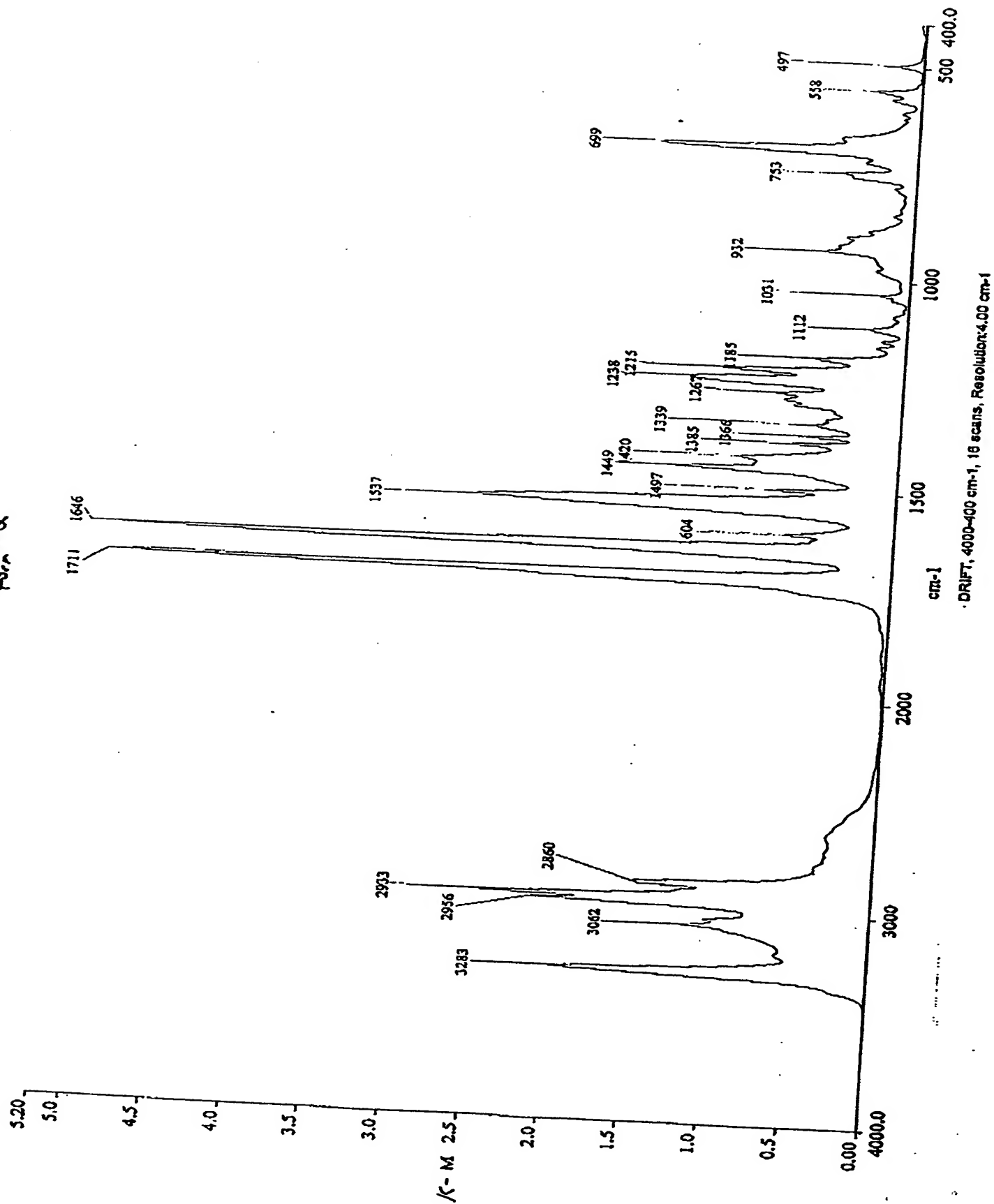
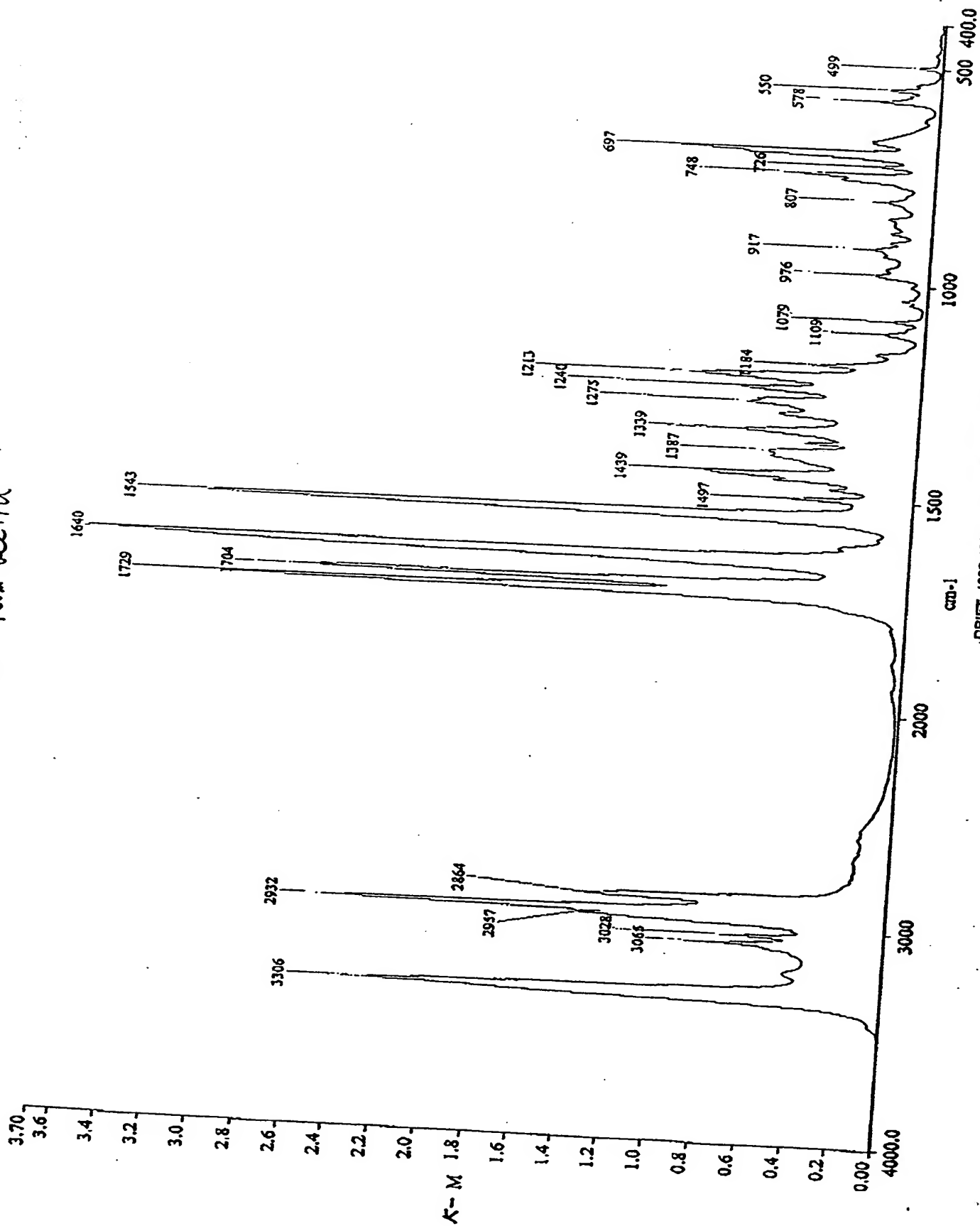
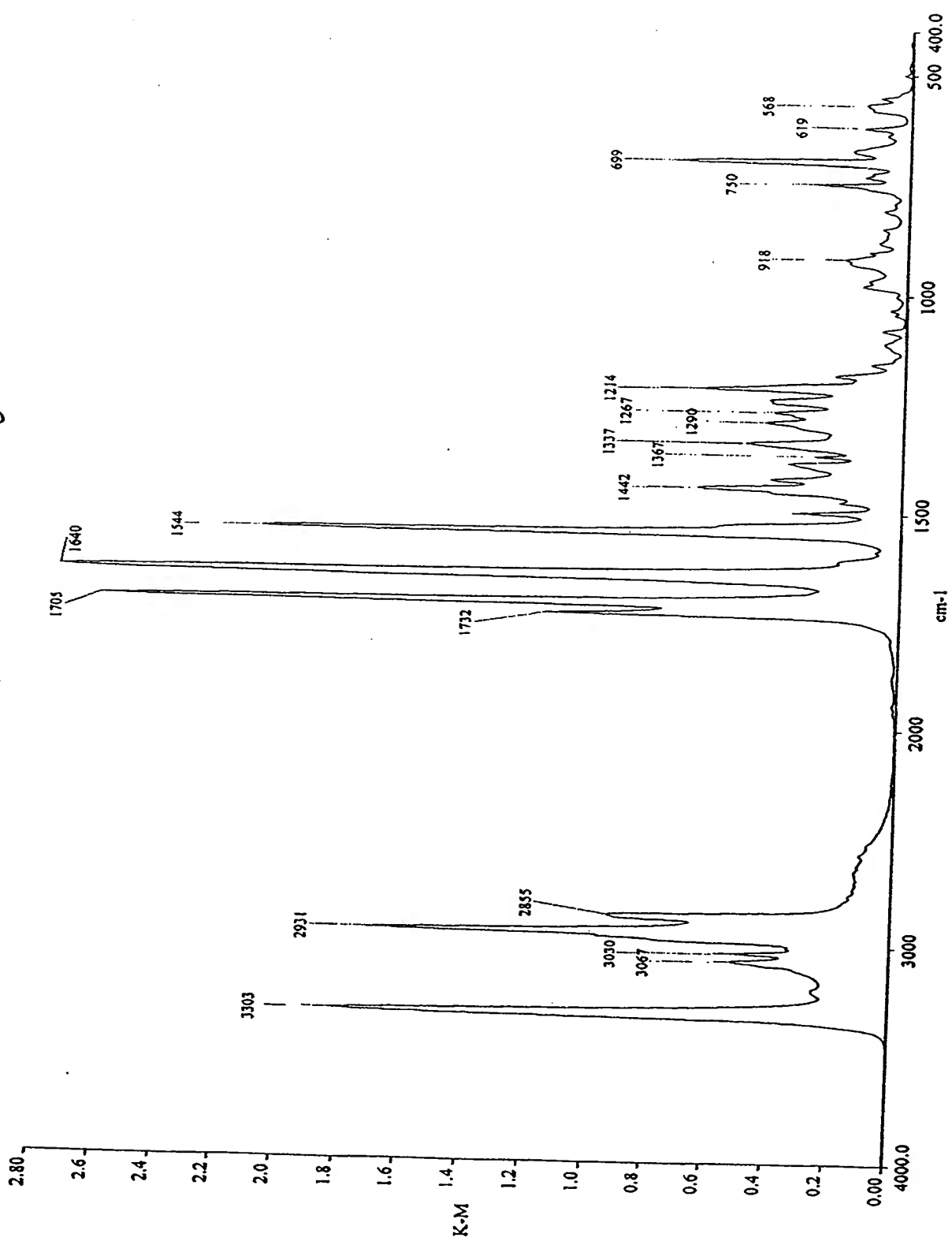


Figure 34 Form delta



DRIFT, 4000-400cm-1, 16 scans, resolution: 4.0cm-1

FIGURE 35 - form



DRIFT, 4000-400CM-1, 16 SCANS RESOLUTION: 4.0CM-1

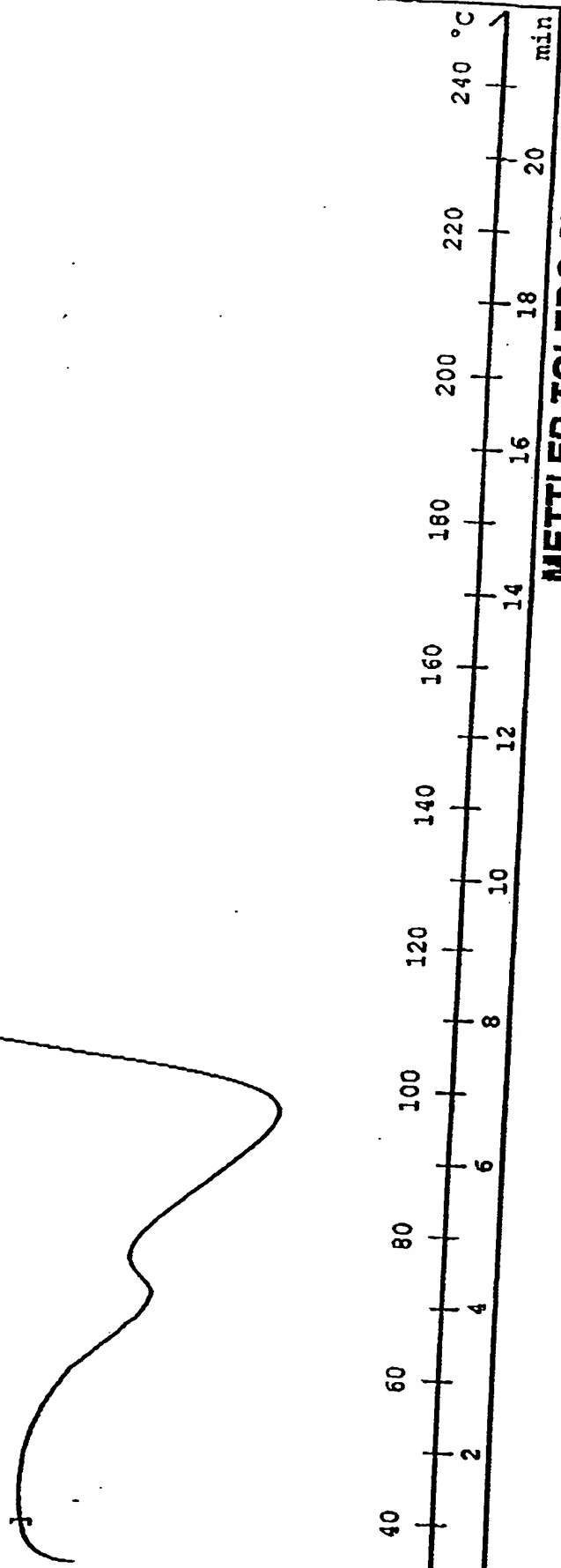
form (S)

FIGURE 36

Form A

Method: 30-250°C, 10°C/min, 40 ml/min N<sub>2</sub>  
30.0-250.0°C 10.00°C/min

N<sub>2</sub>, 40.0 ml/min

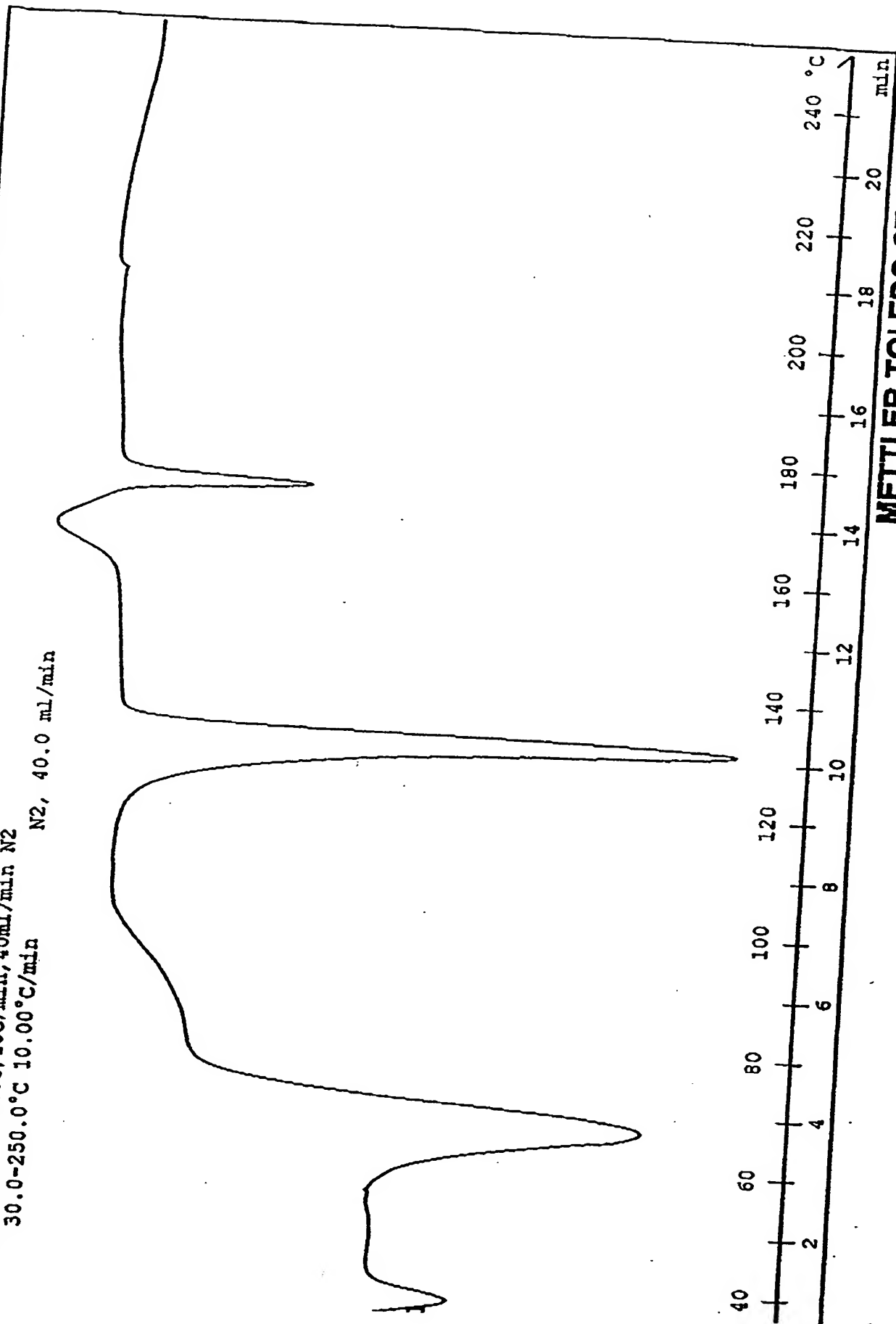


METTLER TOLEDO STAR® System

FIGURE 37

Form D

Method: 30-250°C, 10°C/min, 40ml/min N<sub>2</sub>  
30.0-250.0°C 10.00°C/min  
N<sub>2</sub>, 40.0 ml/min

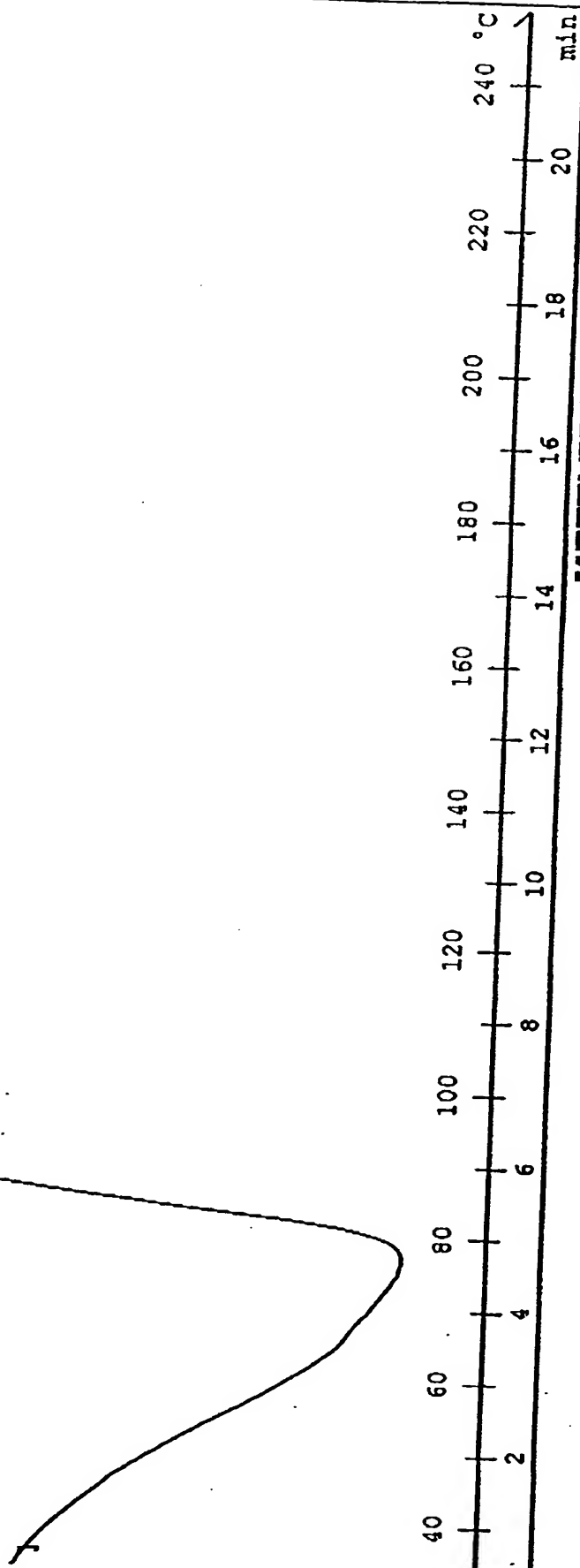


METTTLER TOLEDO STAR® System

FIGURE 38

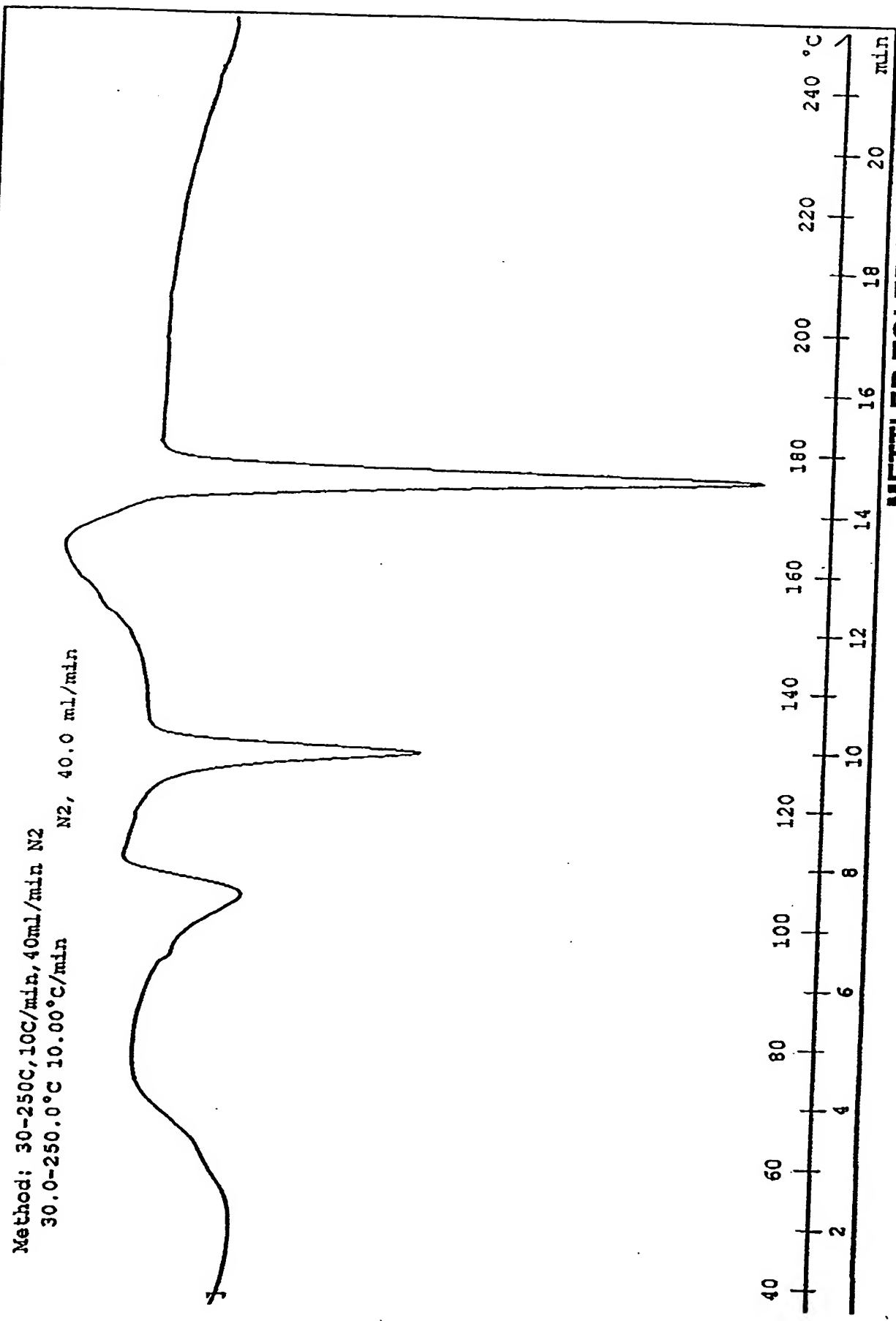
Form E

Method: 30-250°C, 10°C/min, 40 ml/min N<sub>2</sub>  
30.0-250.0°C 10.00°C/min N<sub>2</sub>, 40.0 ml/min



METTTLER TOLEDO STAR® System

FIGURE 10

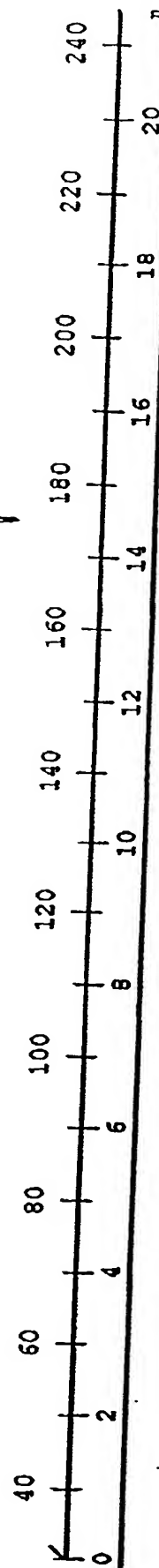
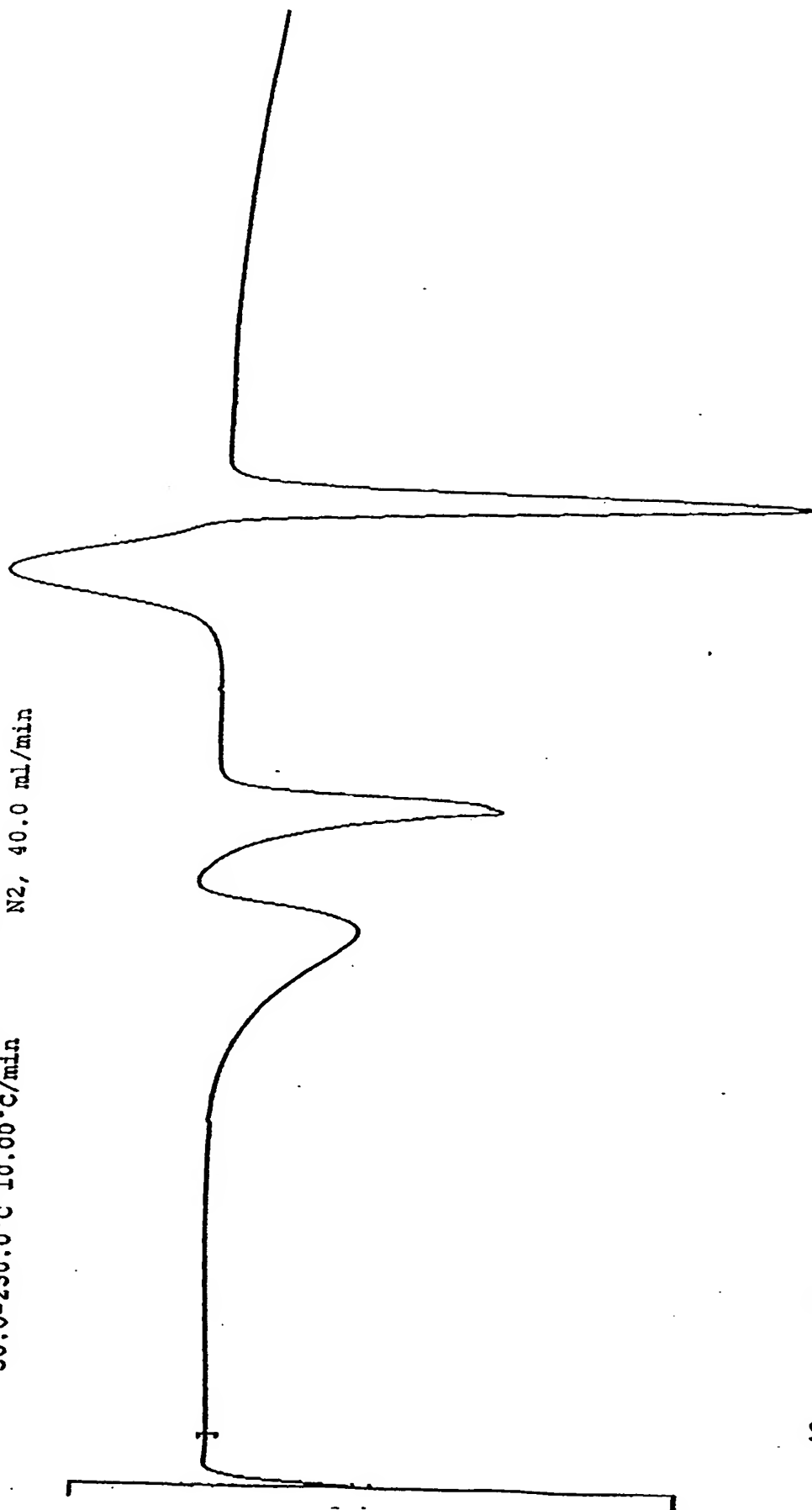




40  
FIGURE 33

IXO

Method: 30-250C, 10C/min, 40ml/min N2  
30.0-250.0°C 10.00°C/min  
N2, 40.0 ml/min



METTLER TOLEDO STAR® Syst

FIGURE 2041

Form I

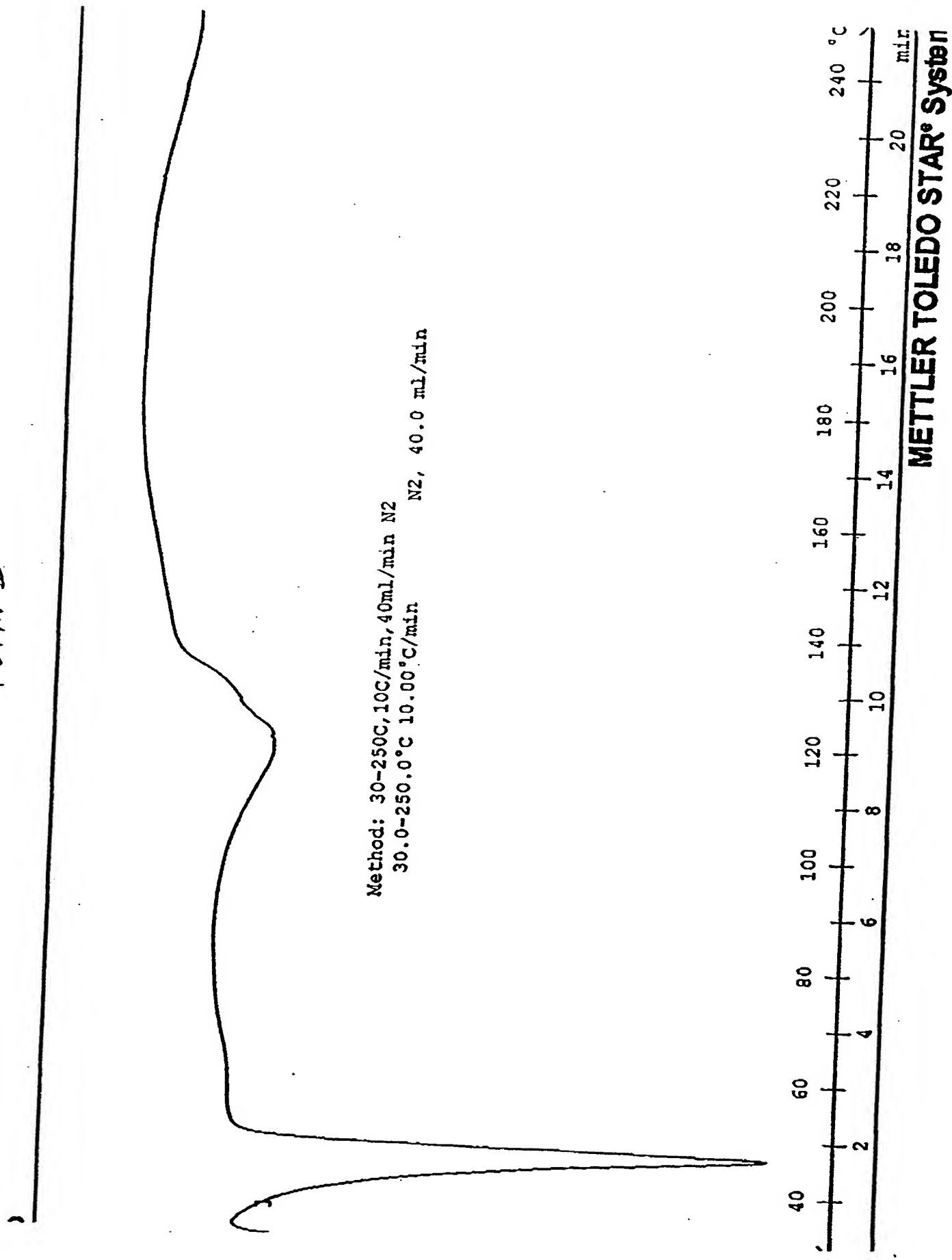


FIGURE 4a

Form J

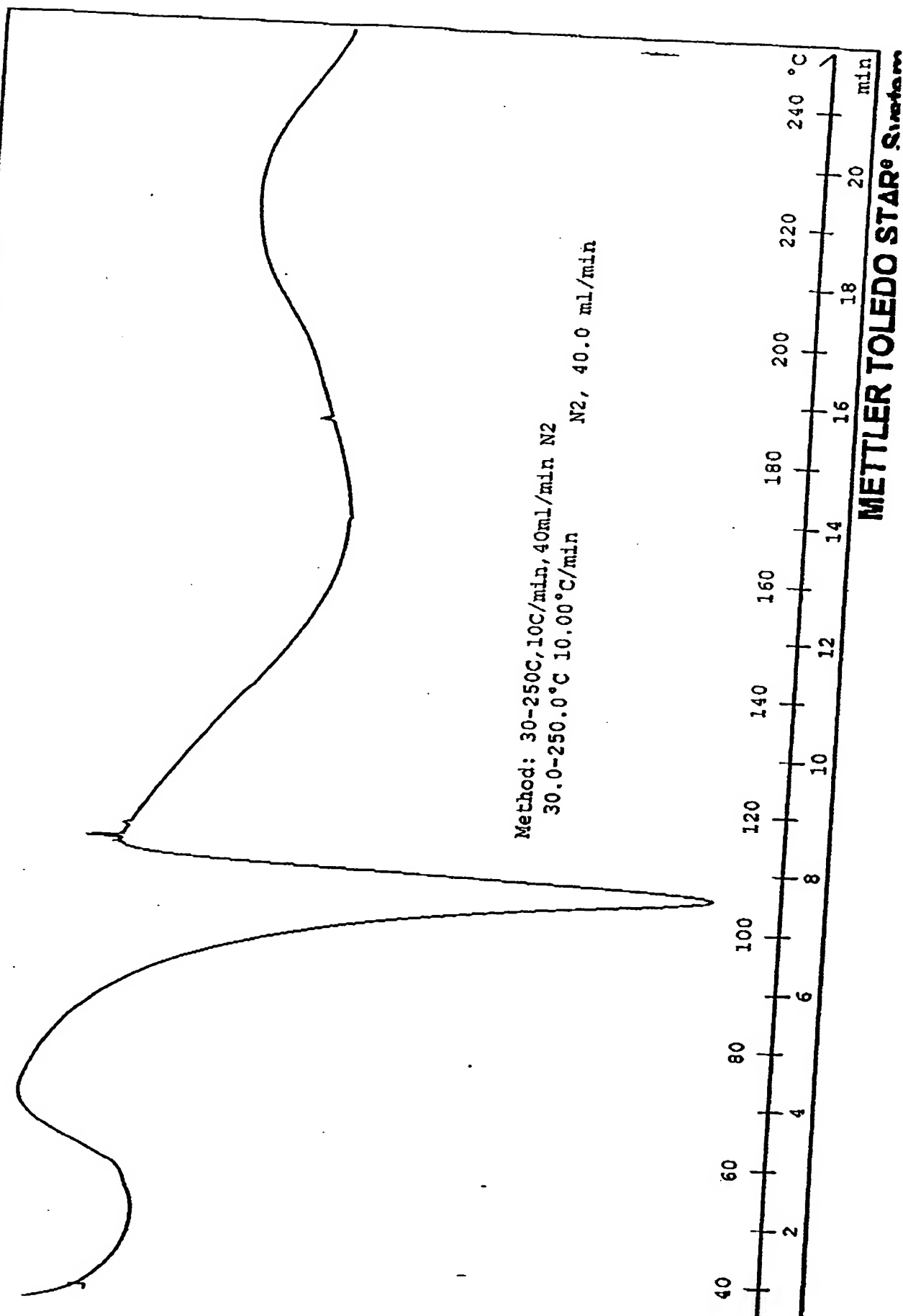
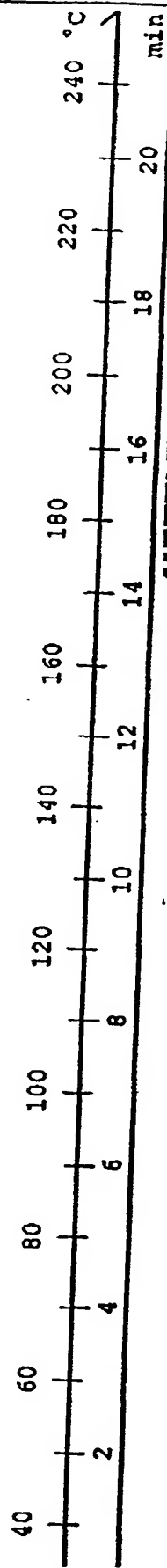


FIGURE 43  
Form K

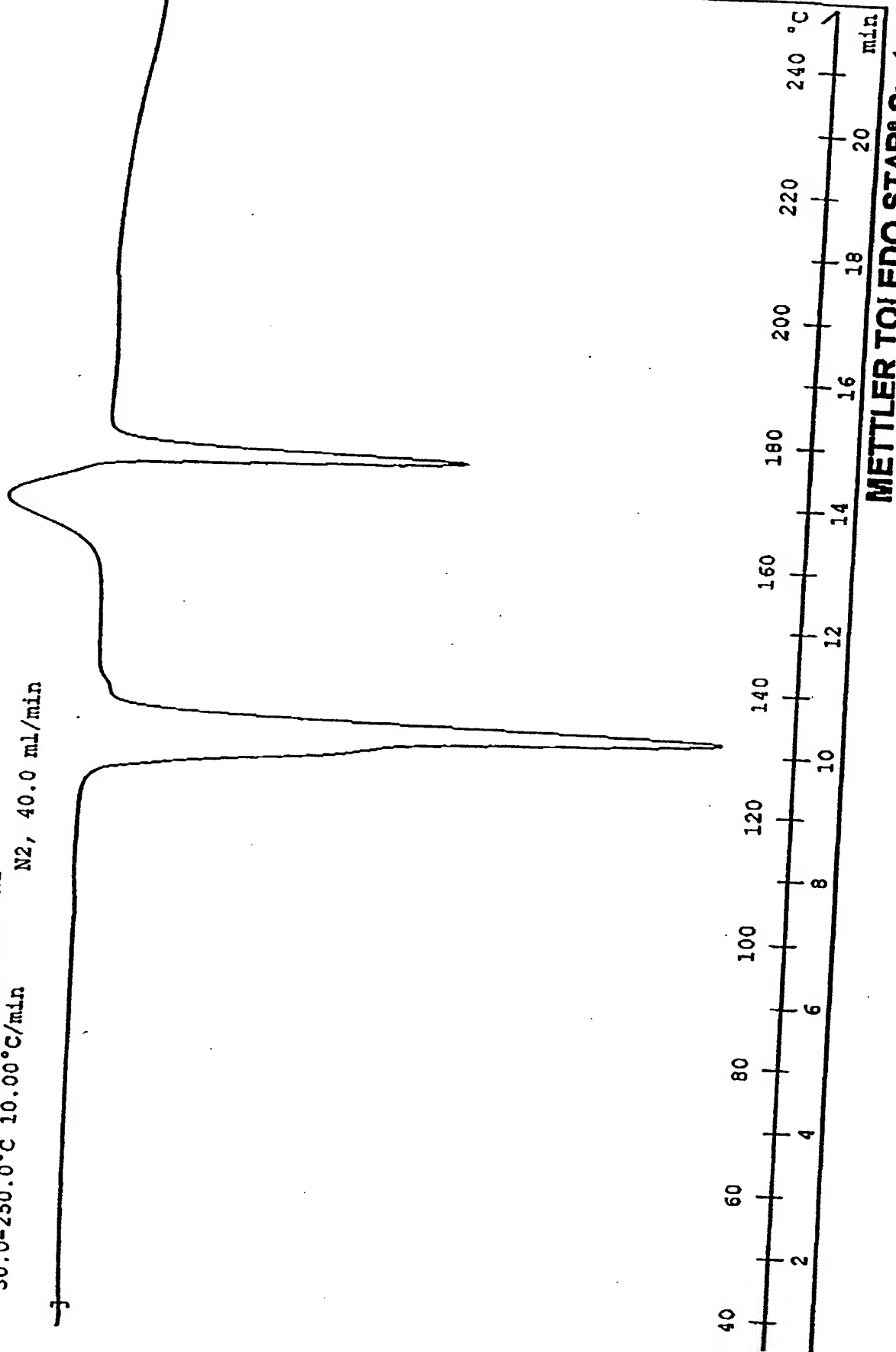
Method: 30-250°C, 10°C/min, 40ml/min N<sub>2</sub>  
30.0-250.0°C 10.00°C/min  
N<sub>2</sub>, 40.0 ml/min



METTLER TOLEDO STAR® System

FIGURE 42 4/4  
Form L

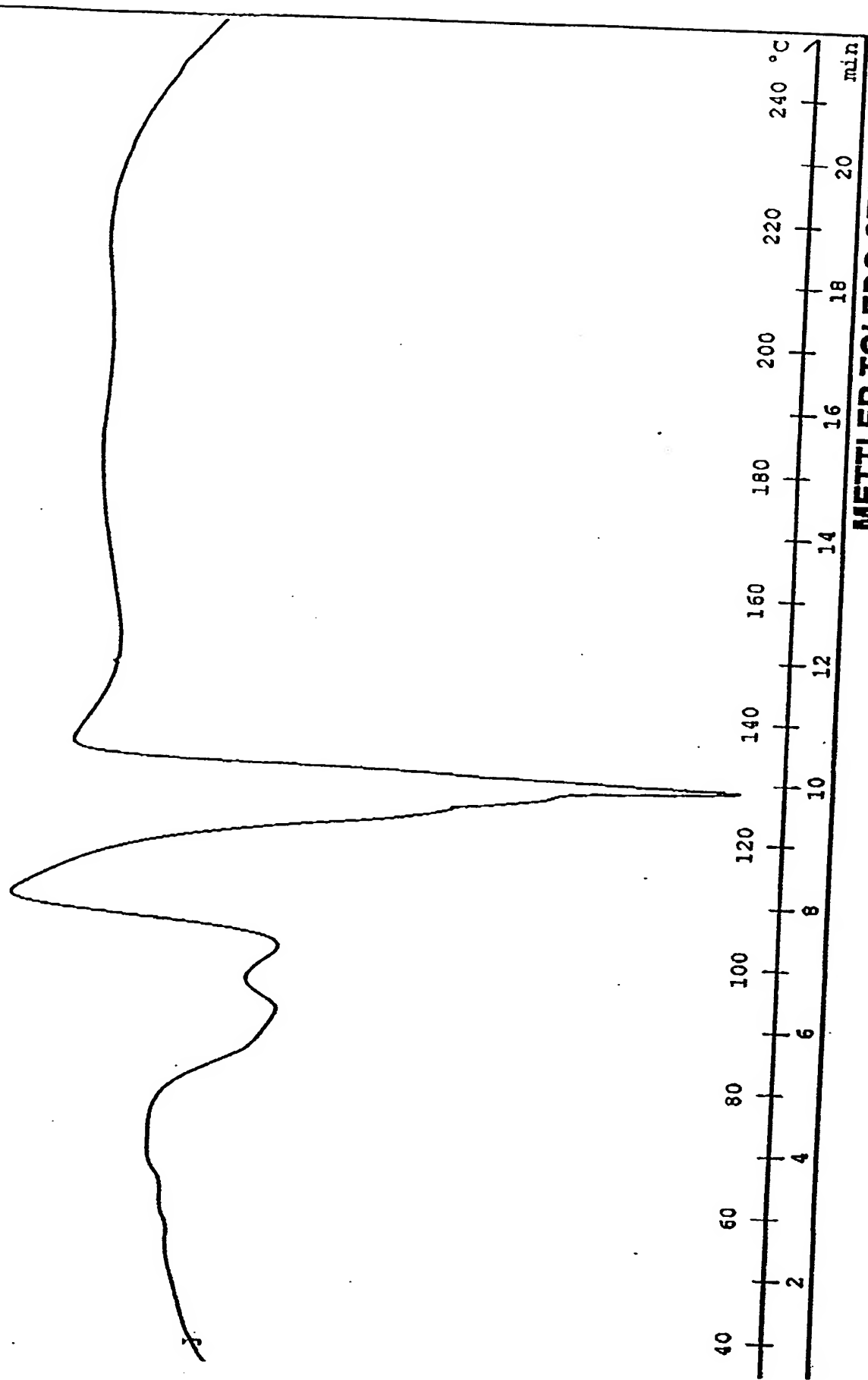
Method: 30-250°C, 10°C/min, 40ml/min N2  
30.0-250.0°C 10.00°C/min N2, 40.0 ml/min



METTLER TOI FND STAB 0.0000

FIGURE 45  
Form M

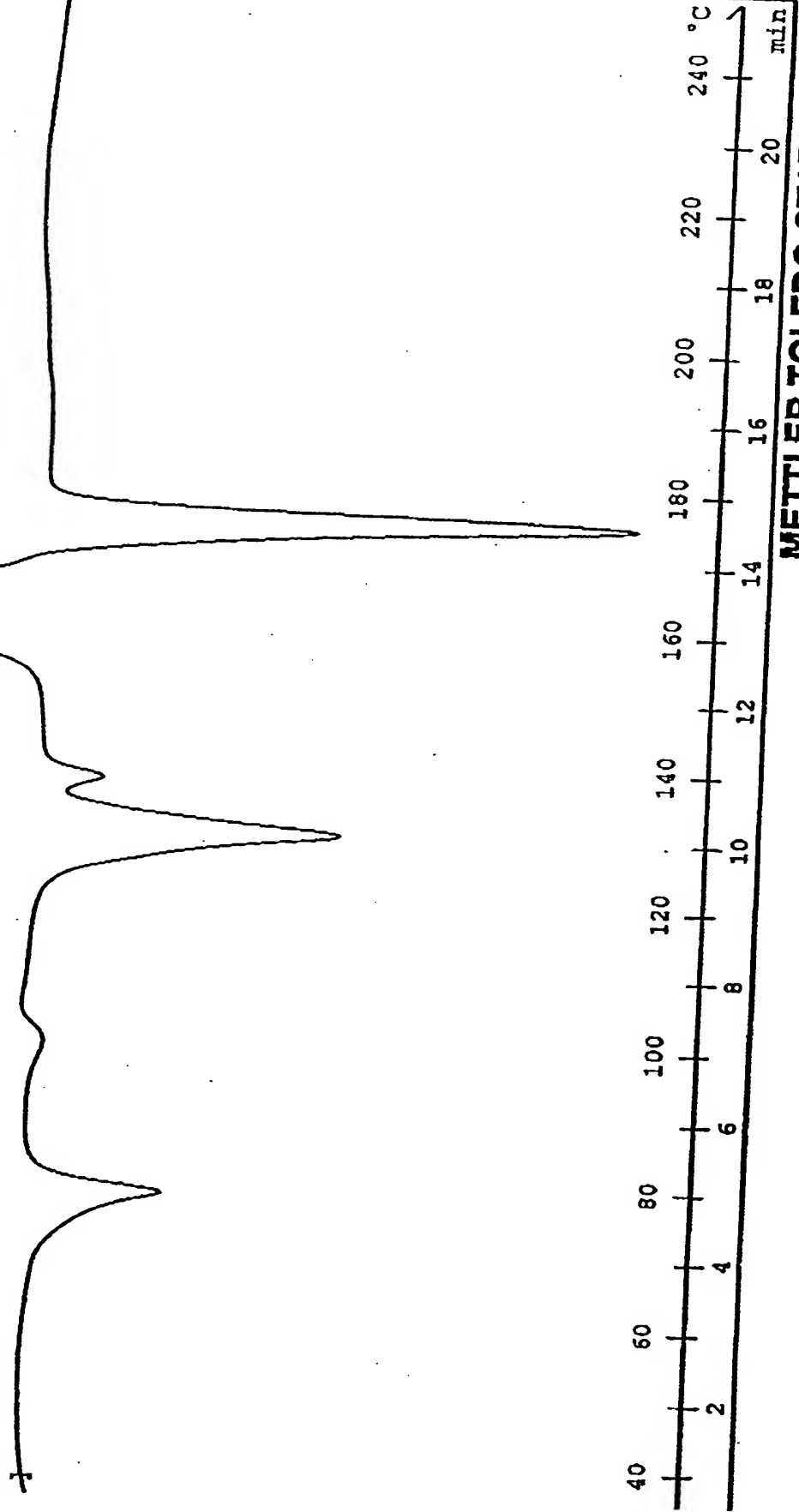
Method: 30-250°C, 10°C/min, 40 ml/min N<sub>2</sub>  
30.0-250.0°C 10.00°C/min



METTLER TOLEDO STAR® System

FIGURE 44 46  
Form N

Method: 30-250°C, 10°C/min, 40ml/min N2  
30.0-250.0°C 10.00°C/min N2, 40.0 ml/min

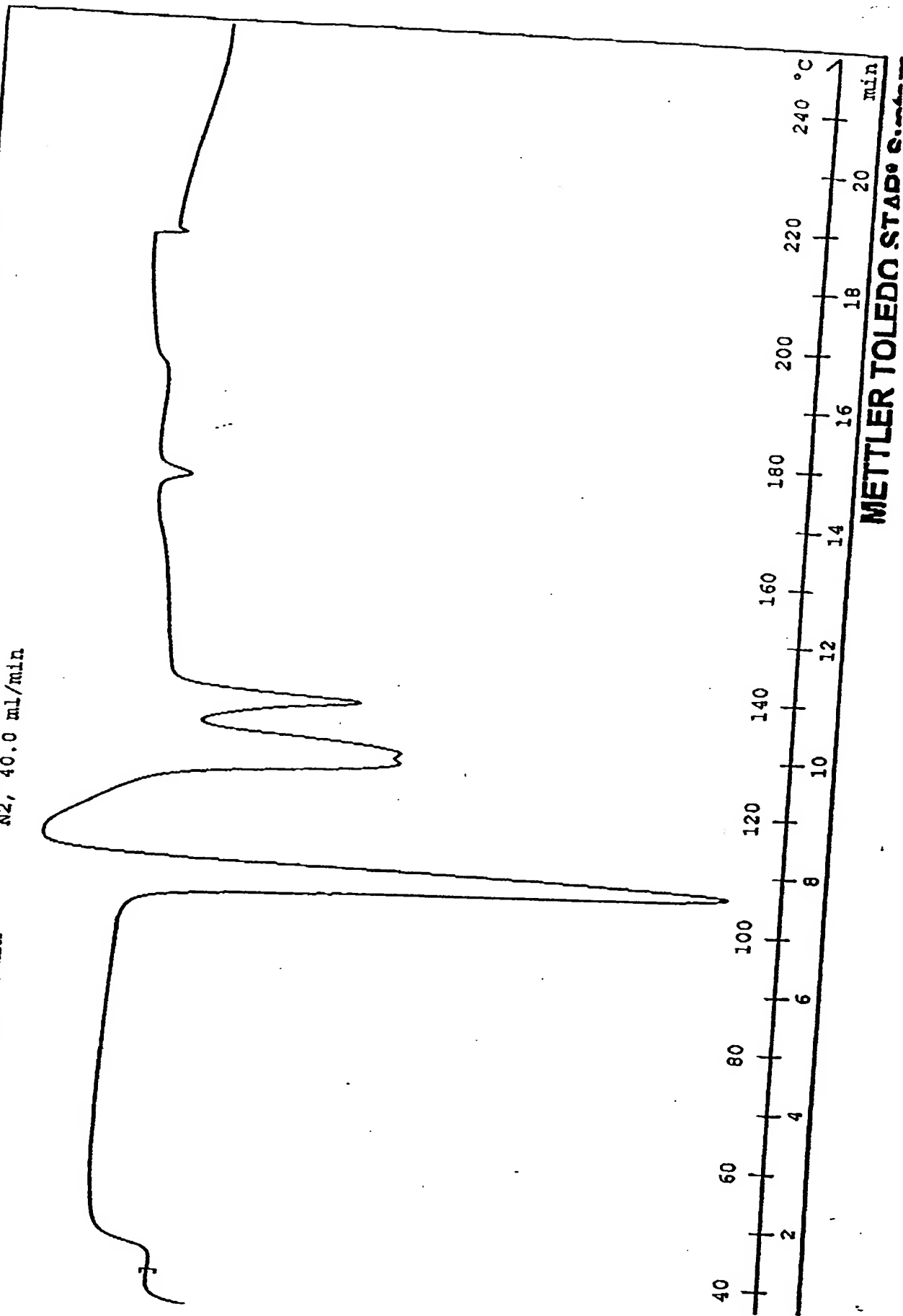


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FIGURE #5 47  
Form G

Method: 30-250°C, 10°C/min, 40ml/min N2  
30.0-250.0°C 10.00°C/min

N2, 40.0 ml/min



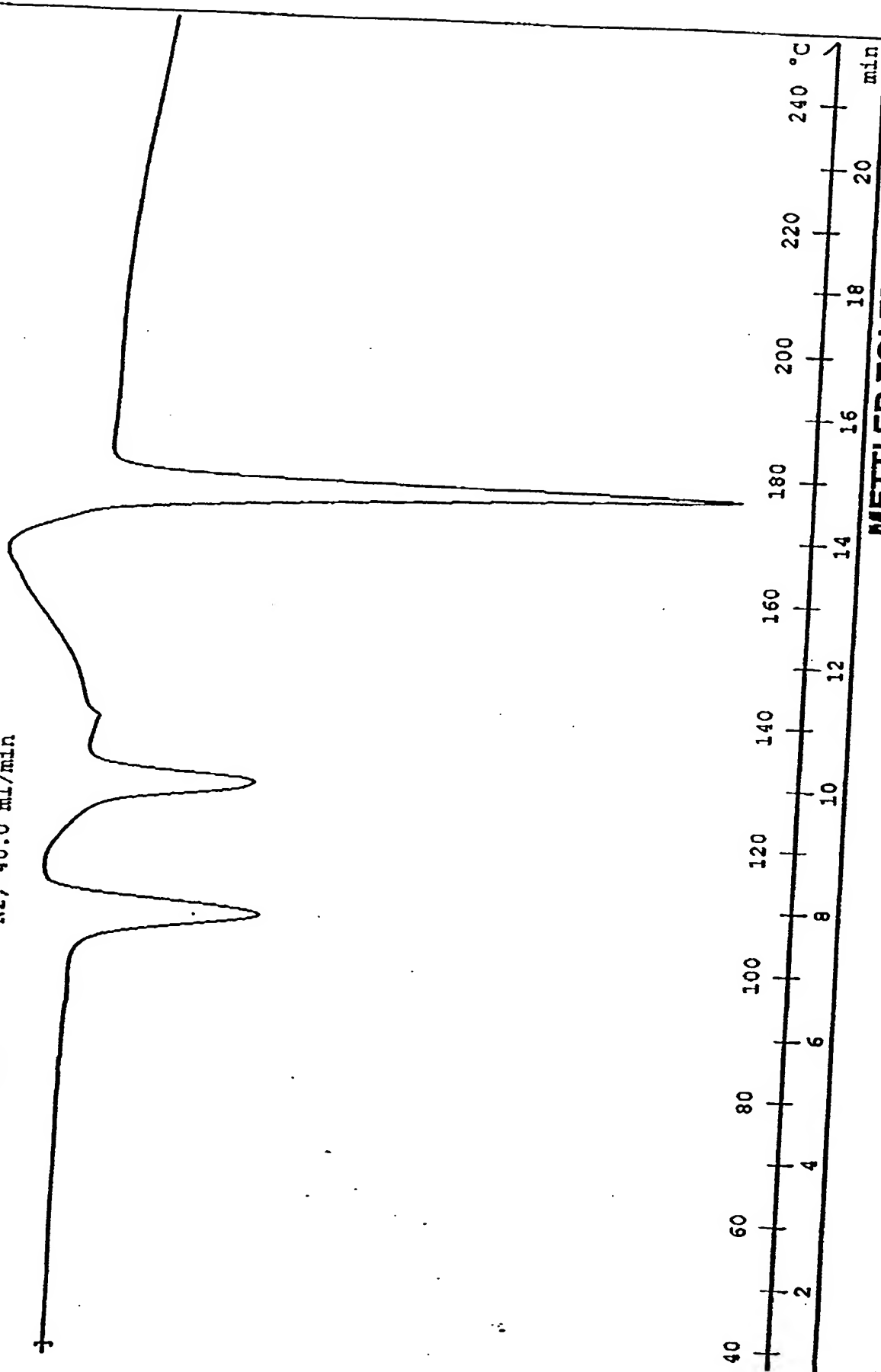
METTTLER TOLEDO STAD® G



FIGURE 48  
Form P

Method: 30-250°C, 10°C/min, 40 mL/min N<sub>2</sub>  
30.0-250.0°C 10.00°C/min

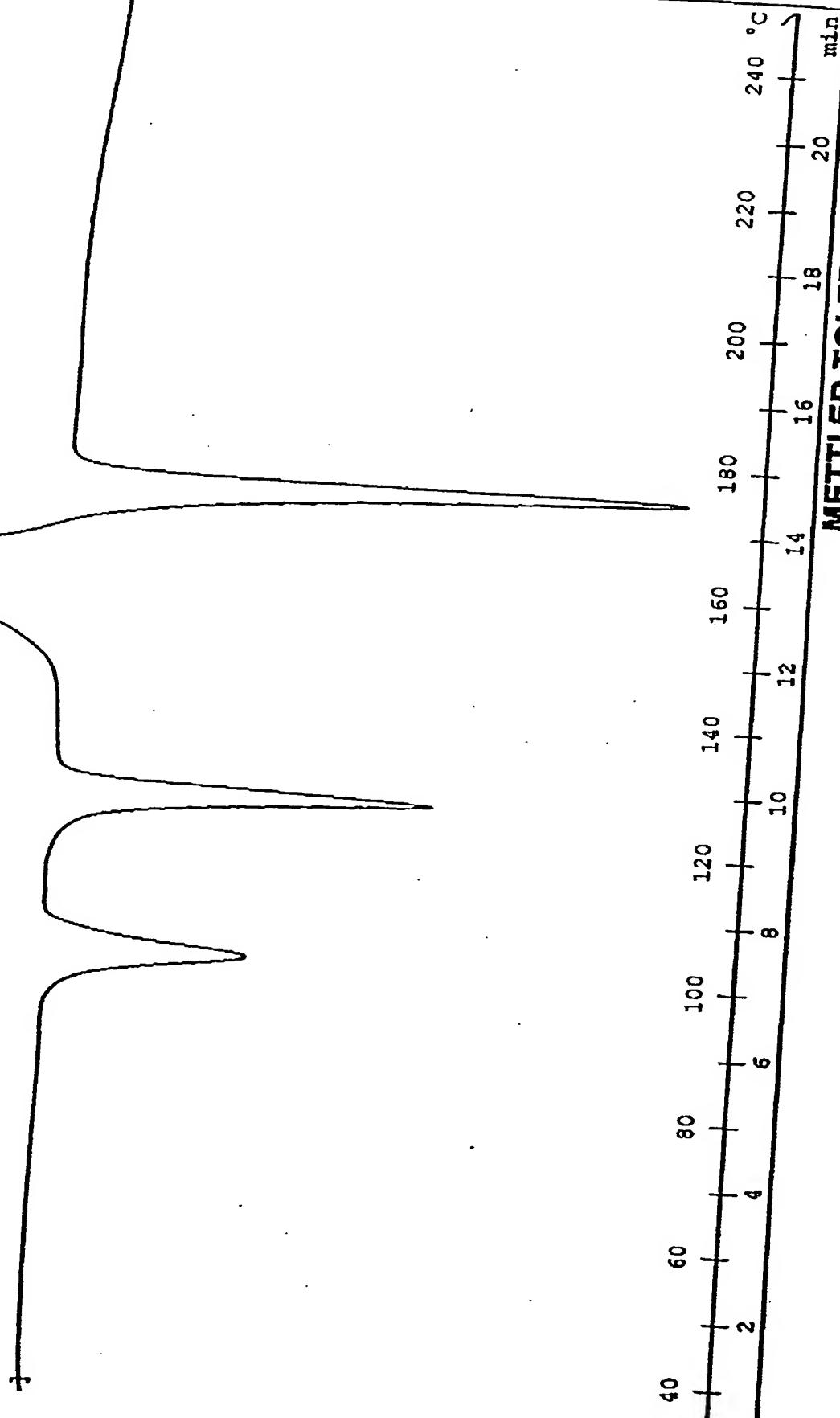
N<sub>2</sub>, 40.0 mL/min



METTLER TOLEDO STAR® System

FIGURE 47 49  
Form Q

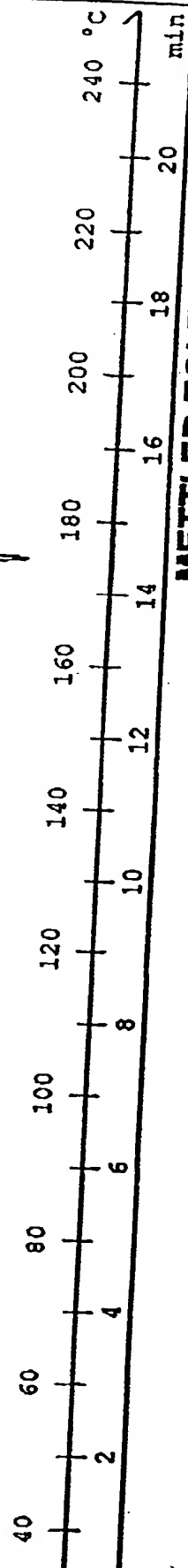
Method: 30-250C, 10C/min, 40ml/min N2  
30.0-250.0°C 10.00°C/min N2, 40.0 ml/min



METTLER TOLEDO STAR® System

FIGURE 48-50  
Form T

Method: 30-250°C, 10°C/min, 40 ml/min N<sub>2</sub>  
30.0-250.0°C 10.00°C/min N<sub>2</sub>, 40.0 ml/min



METTLER TOLEDO STAR® System

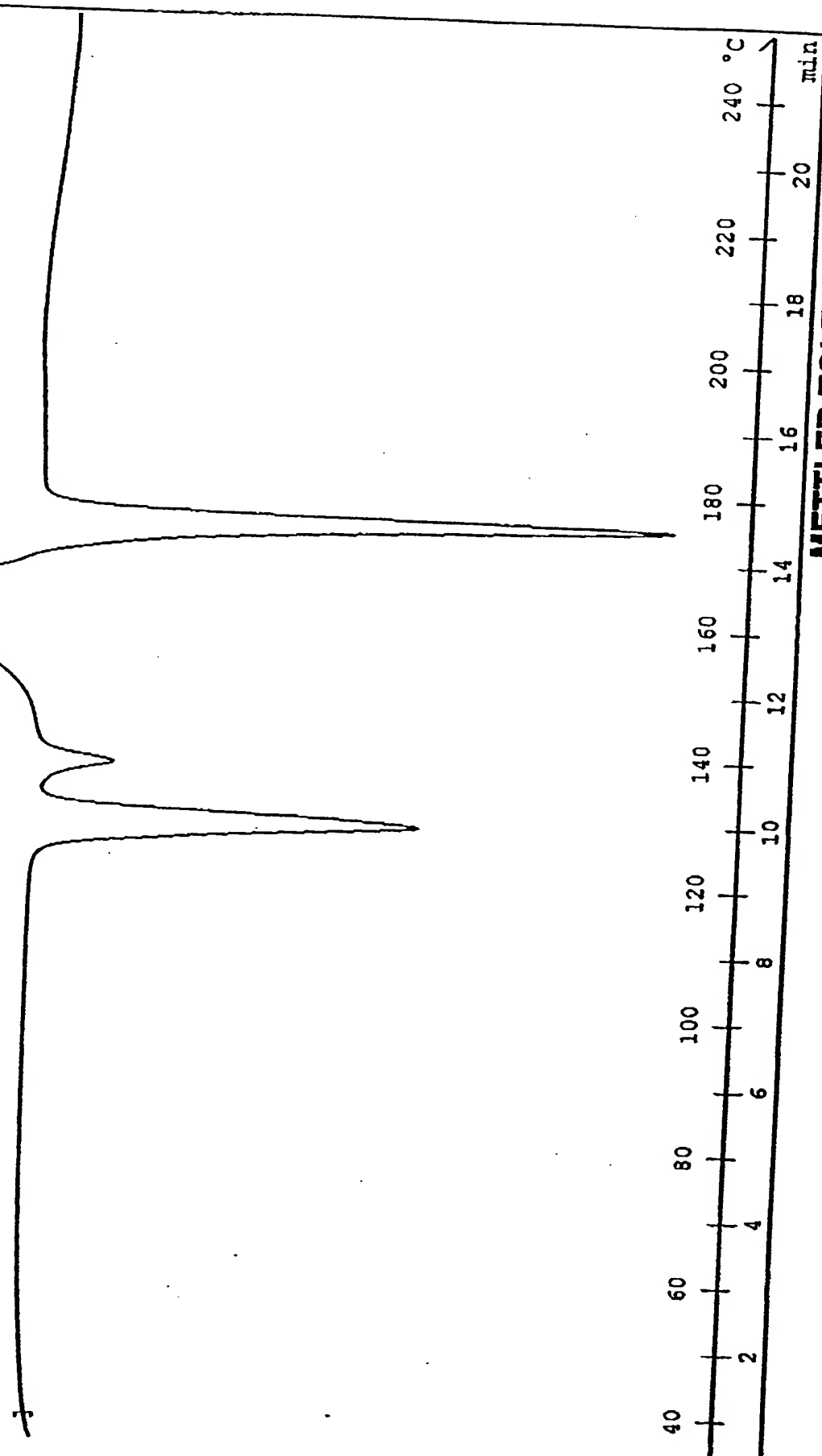
FIGURE 49-51

Form U

Method: 30-250°C, 10°C/min, 40 ml/min N2

30.0-250.0°C 10.00°C/min

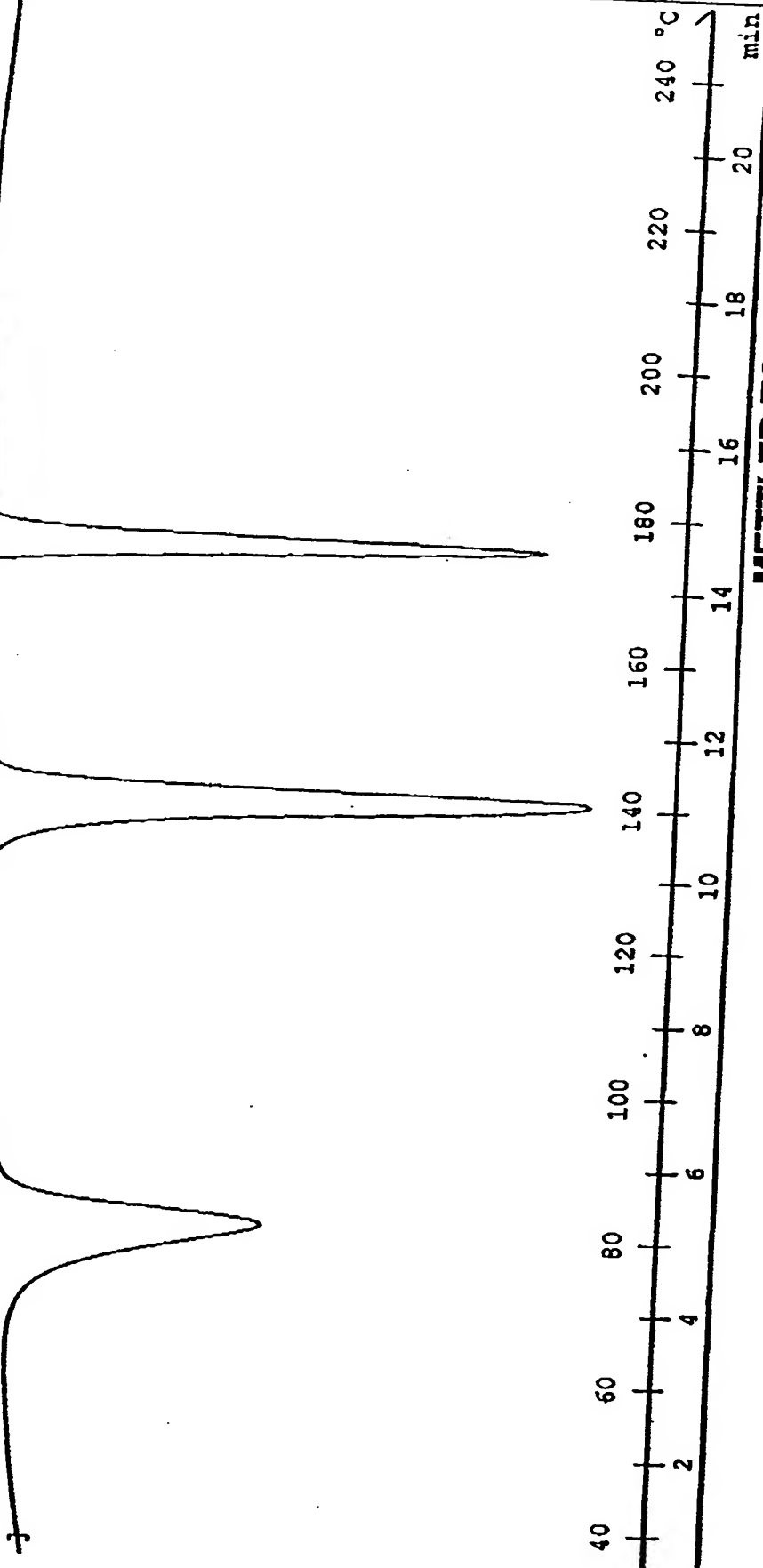
N2, 40.0 ml/min



METTTLER TOLEDO STAR® System

FIGURE 5052  
Form V

Method: 30-250°C, 10°C/min, 40ml/min N2  
30.0-250.0°C 10.00°C/min N2, 40.0 ml/min



METTLER TOLEDO STAR® System

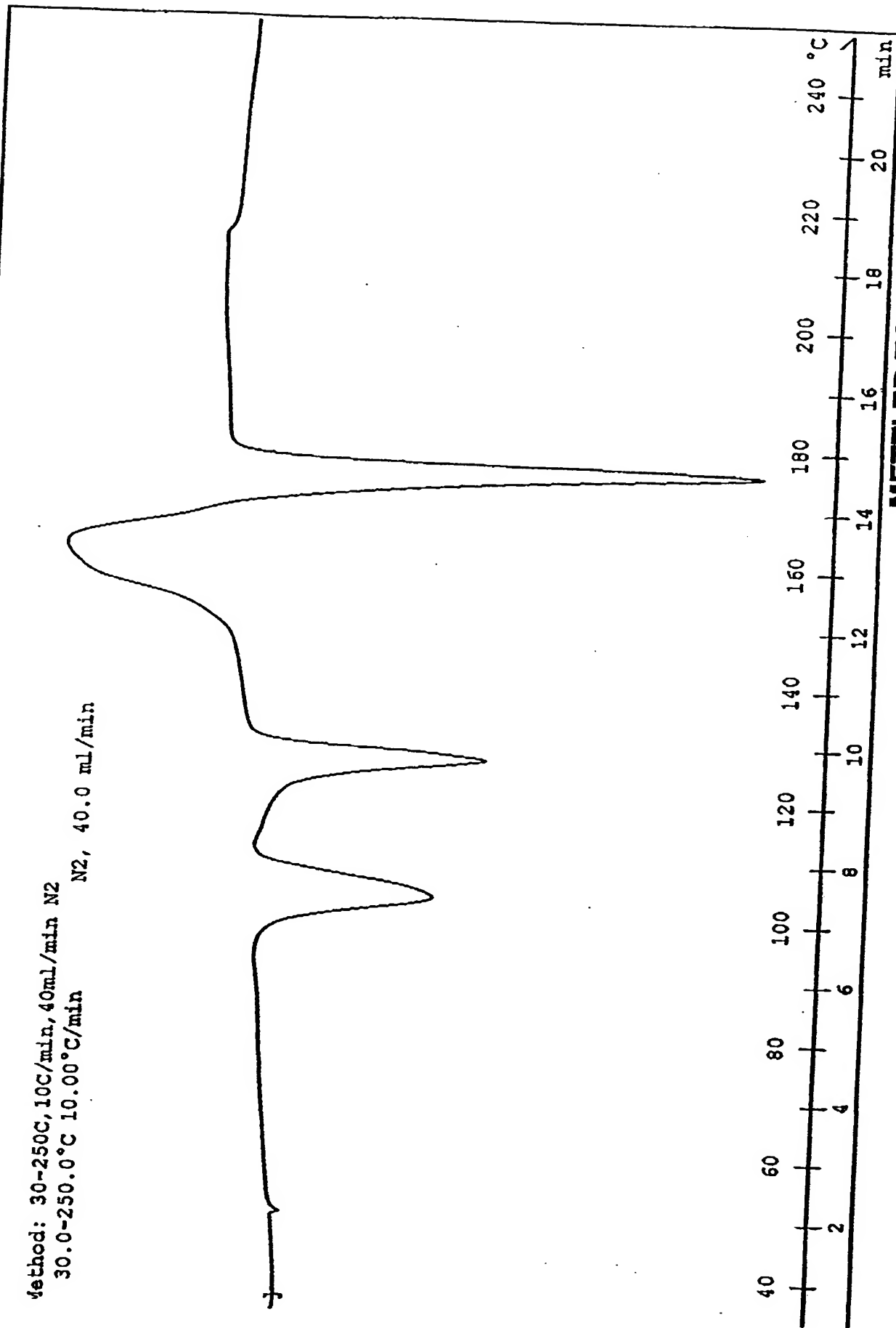
FIGURE 52-53

Form Y (chloroform solvent)

Method: 30-250°C, 10°C/min, 40 ml/min N<sub>2</sub>

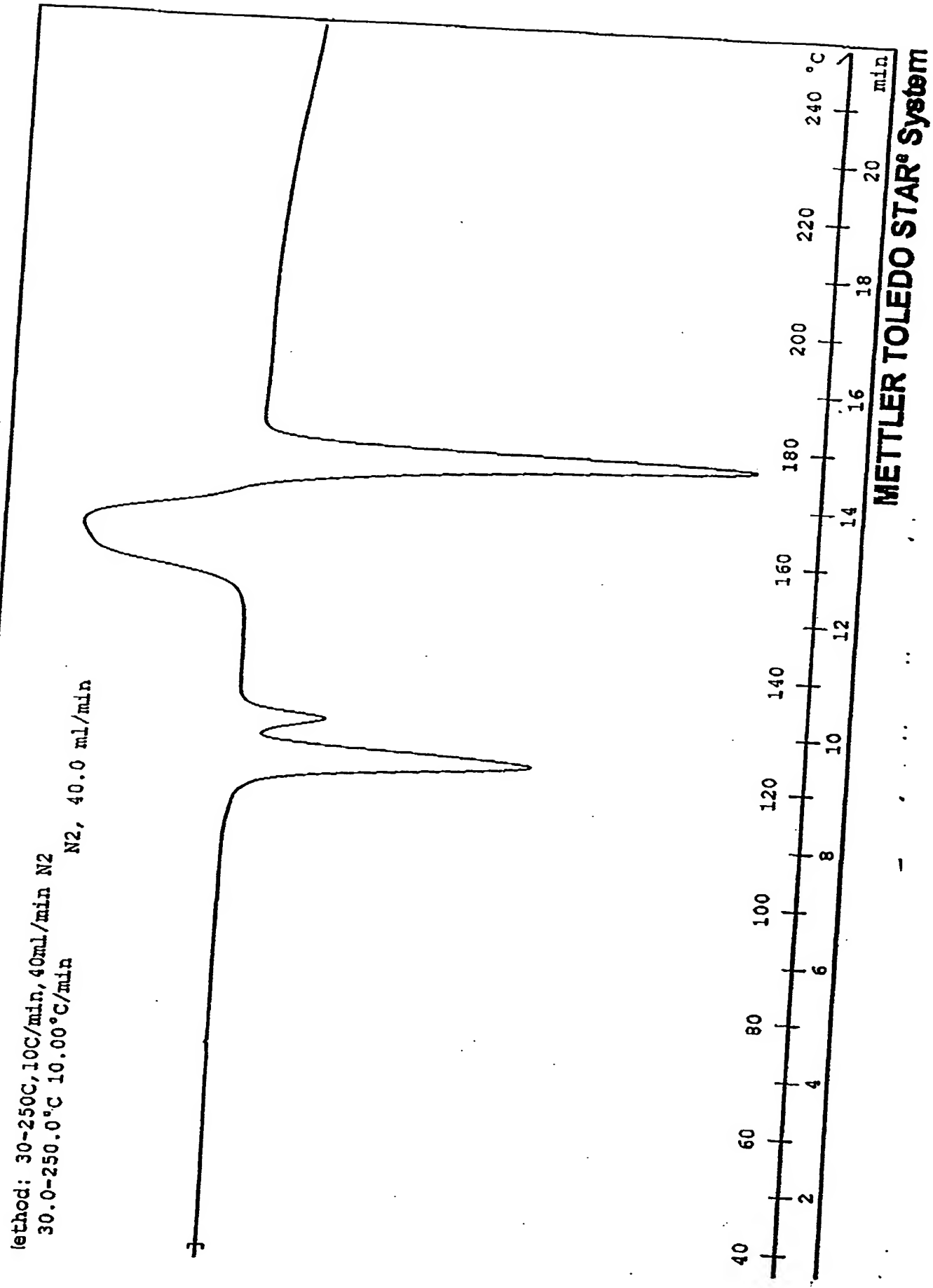
30.0-250.0°C 10.00°C/min

N<sub>2</sub>, 40.0 ml/min



METTLER TOLEDO STAR® System

FIGURE 54  
Y (dichloromethane solvent)



55

Figure 27 - Nataglinde Form Z

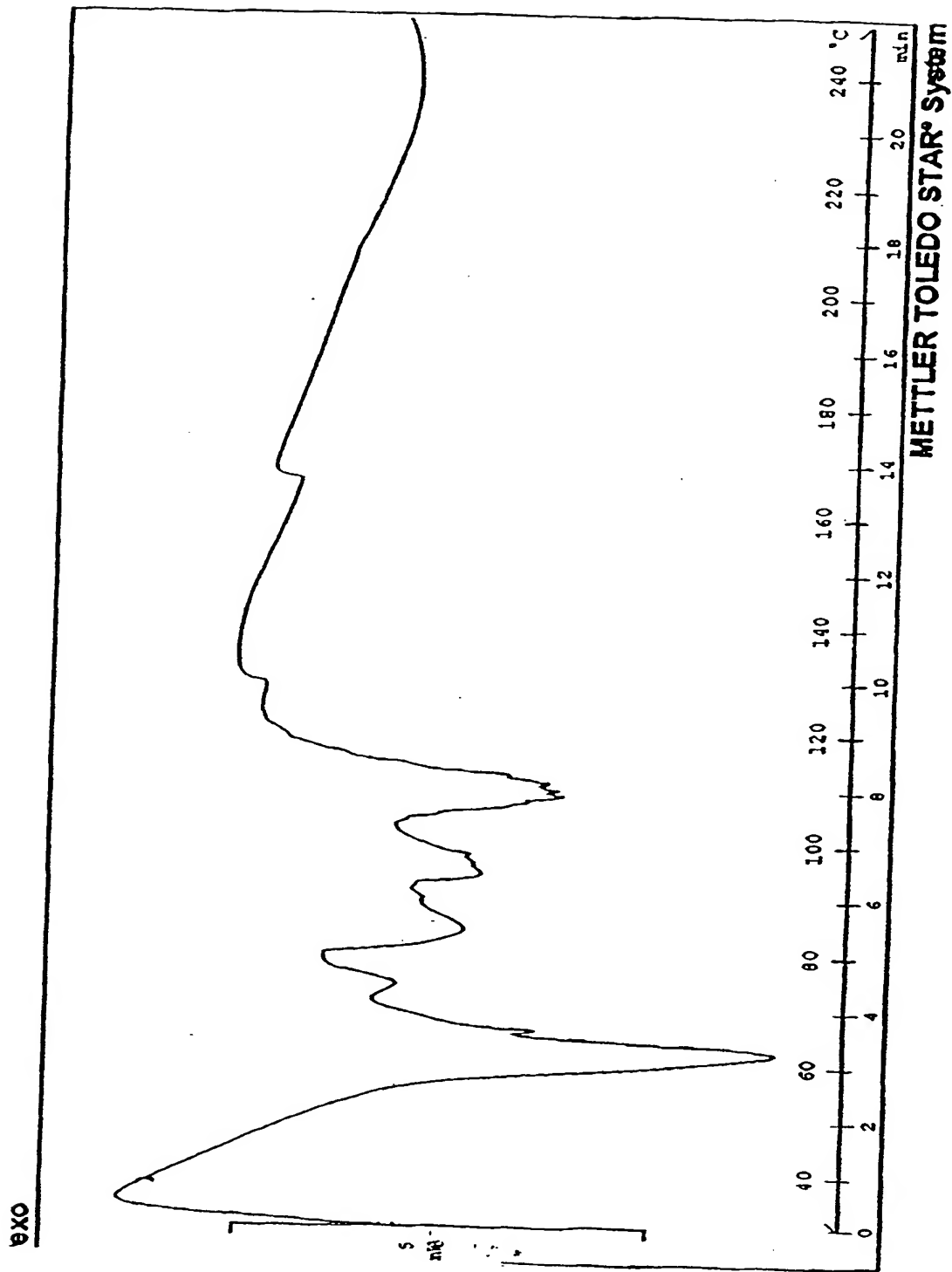
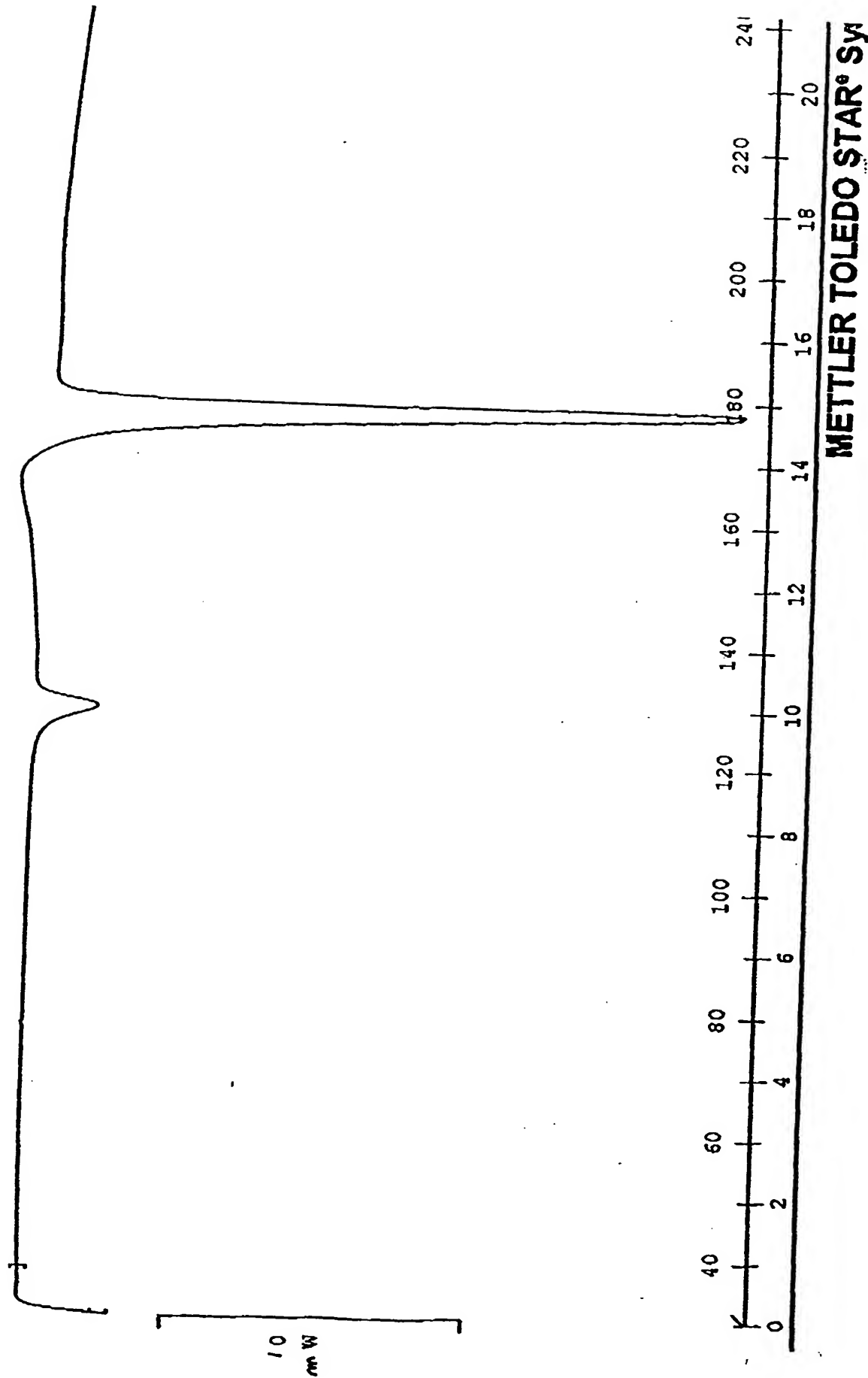




FIGURE 51-56  
Form  $\alpha$

1X0

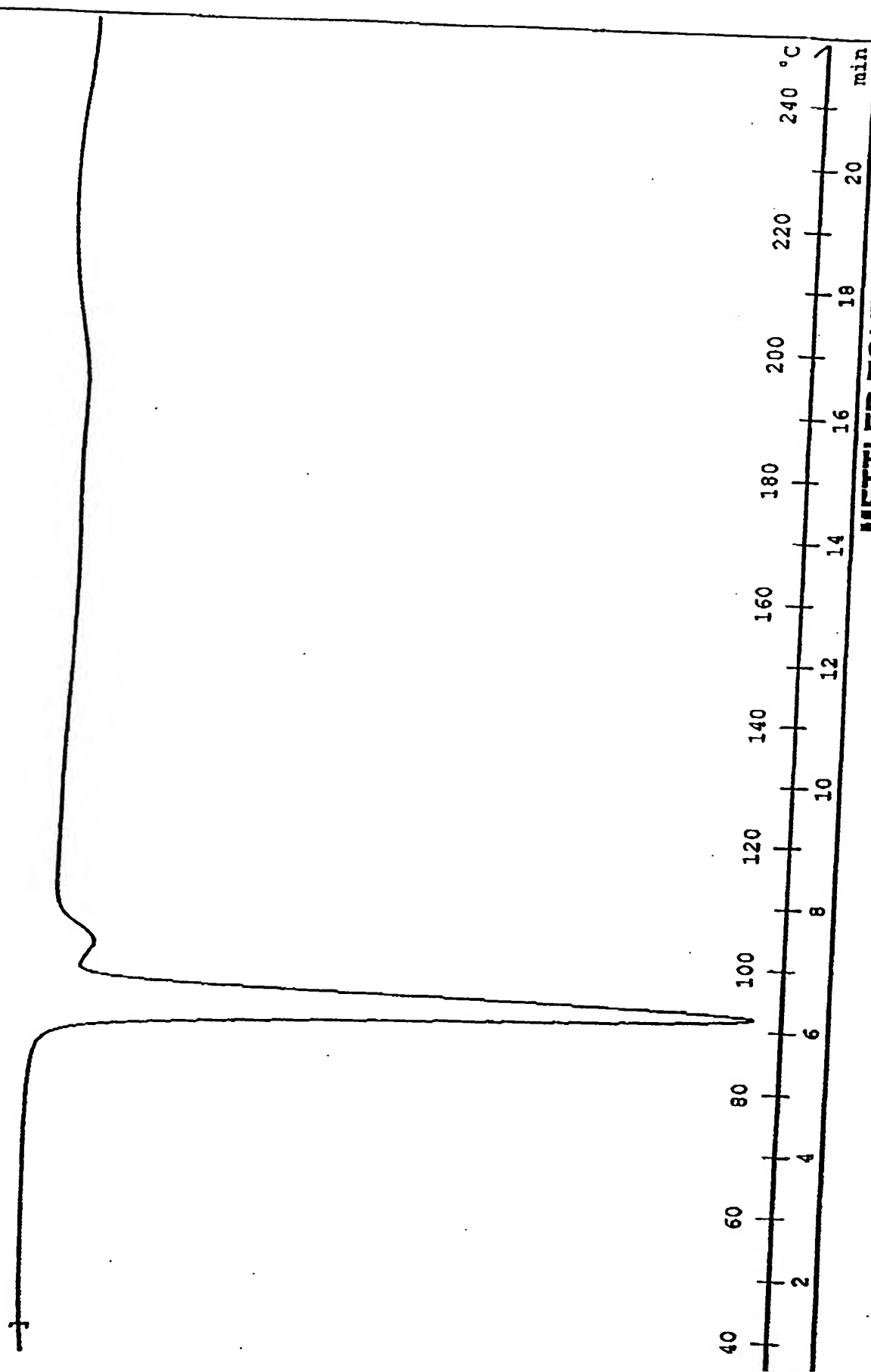
Method: 30-250°C, 10°C/min, 40ml/min N<sub>2</sub>  
30.0-250.0°C 10.00°C/min N<sub>2</sub>, 40.0 ml/min



METTLER TOLEDO STAR® 5M

FIGURE 57  
Form Beta

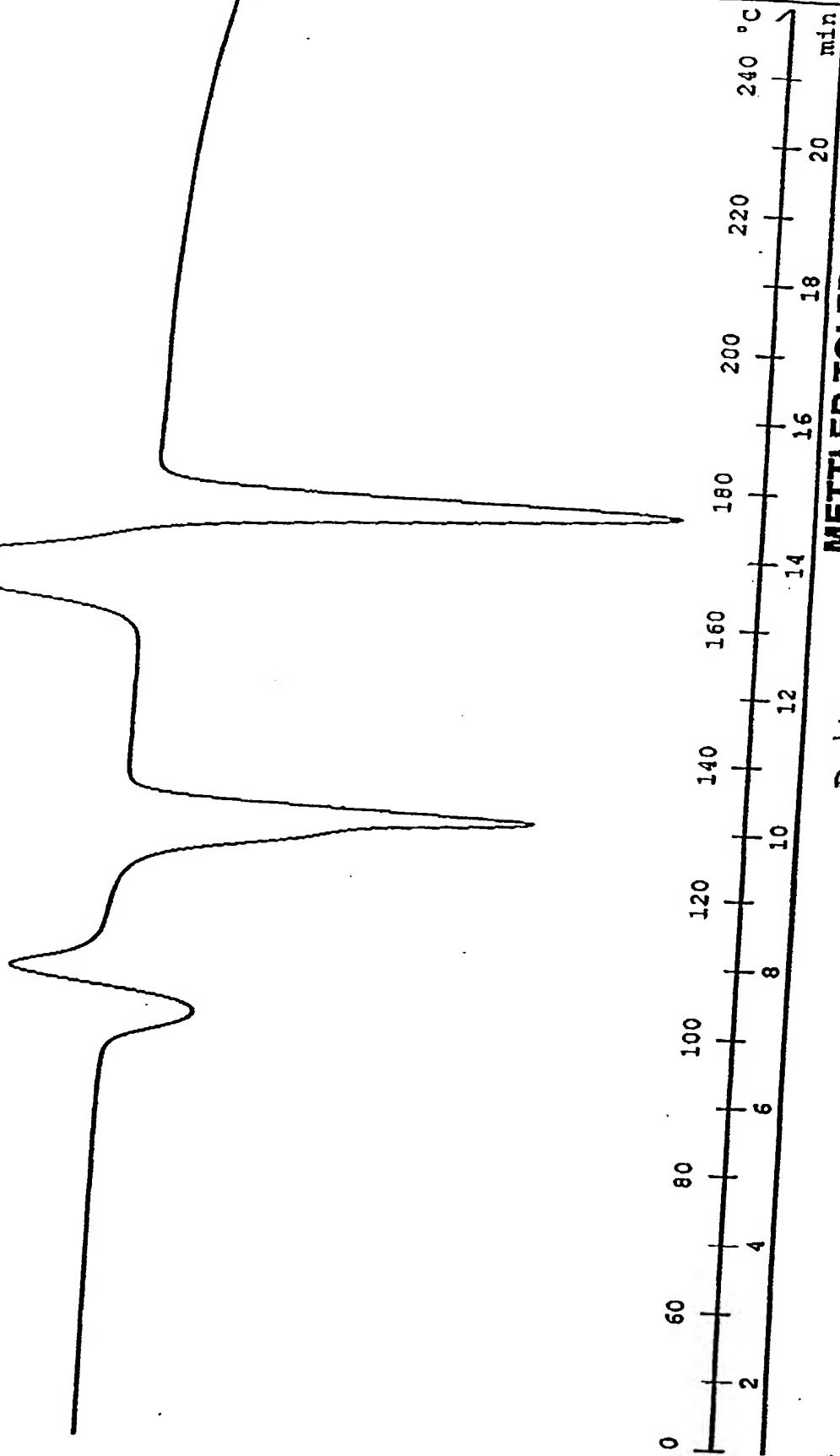
Method: 30-250°C, 10°C/min, 40ml/min N<sub>2</sub>  
30.0-250.0°C 10.00°C/min N<sub>2</sub>, 40.0 ml/min



METTLER TOLEDO STAR® System

FIGURE 55-58  
Form Delta

Method: 30-250°C, 10°C/min, 40 mL/min N<sub>2</sub>  
30.0-250.0°C 10.00°C/min  
N<sub>2</sub>, 40.0 mL/min



METTTLER TOLEDO STAR® System

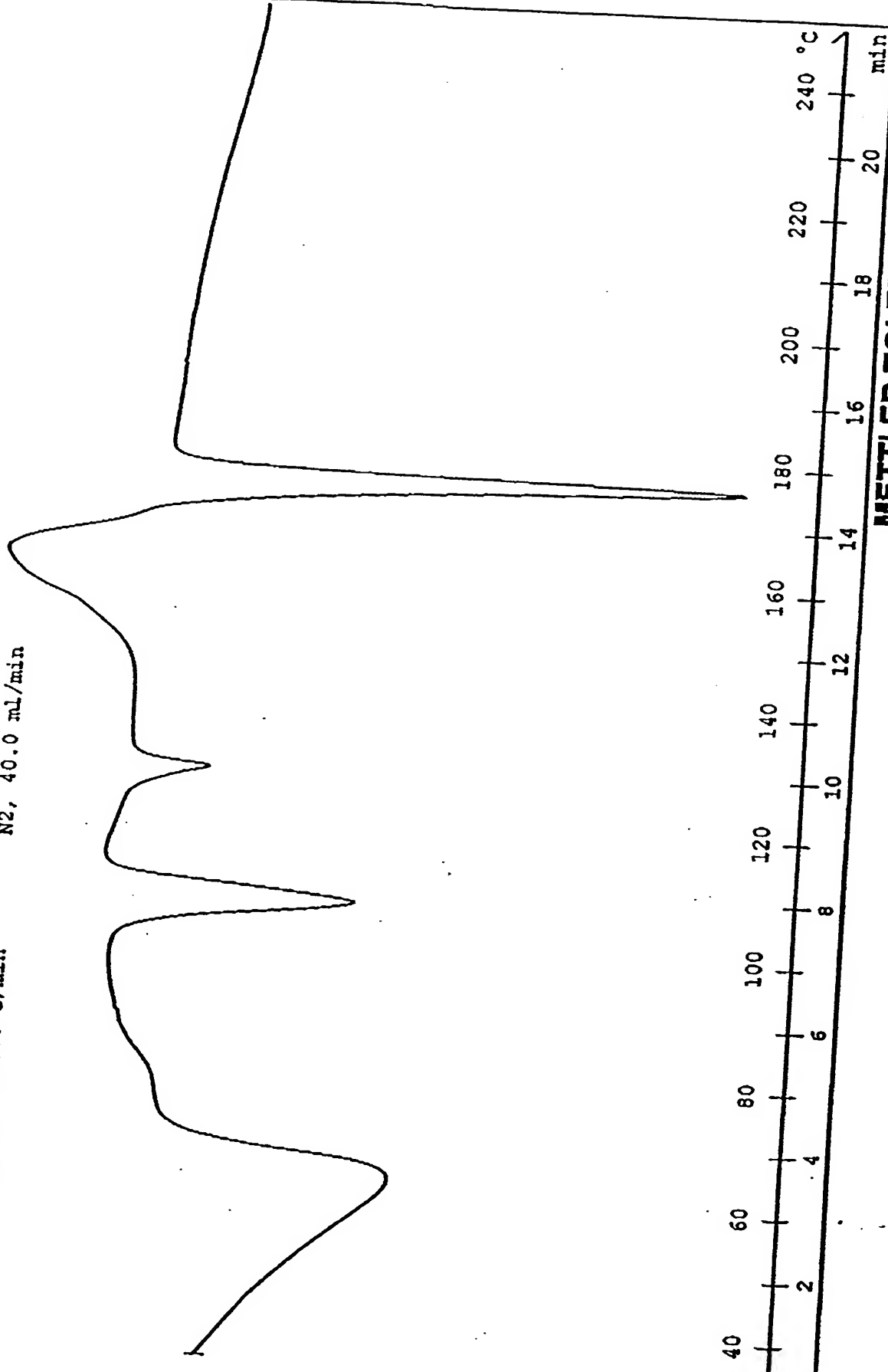
- Delta

Form Epsilon

FIGURE 59

Method: 30-250C, 10C/min, 40ml/min N2  
30.0-250.0°C 10.00°C/min

N2, 40.0 ml/min

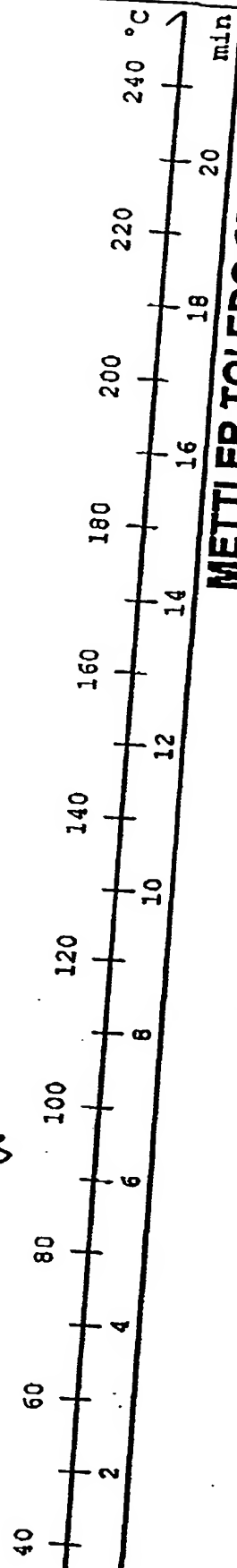


METTLER TOLEDO STAR® System

FIGURE 57  
60

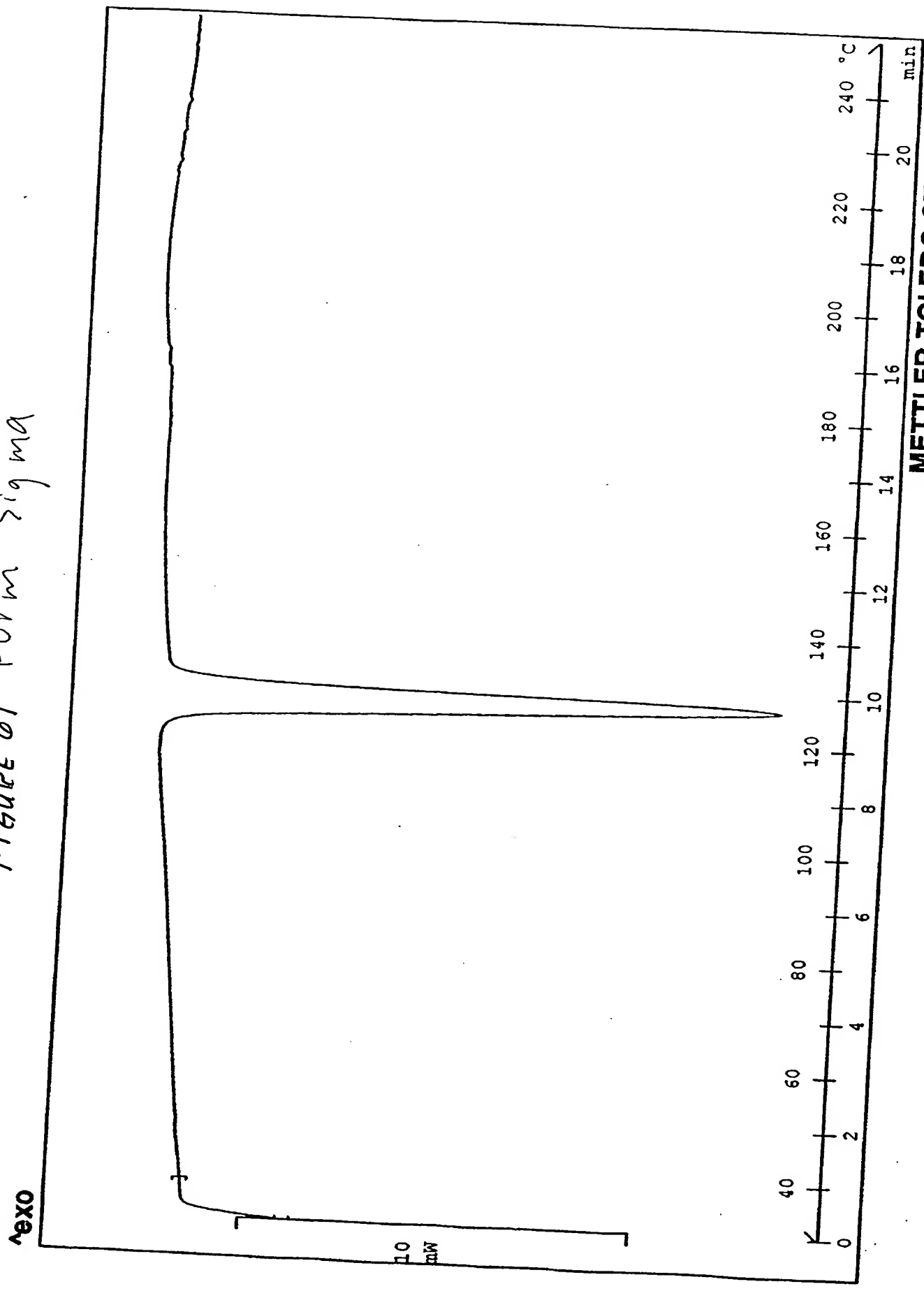
Form ~~P~~ Gamma

Method: 30-250C, 10C/min, 40ml/min N2  
30.0-250.0°C 10.00°C/min N2, 40.0 ml/min



METTLER TOLEDO STAR® System

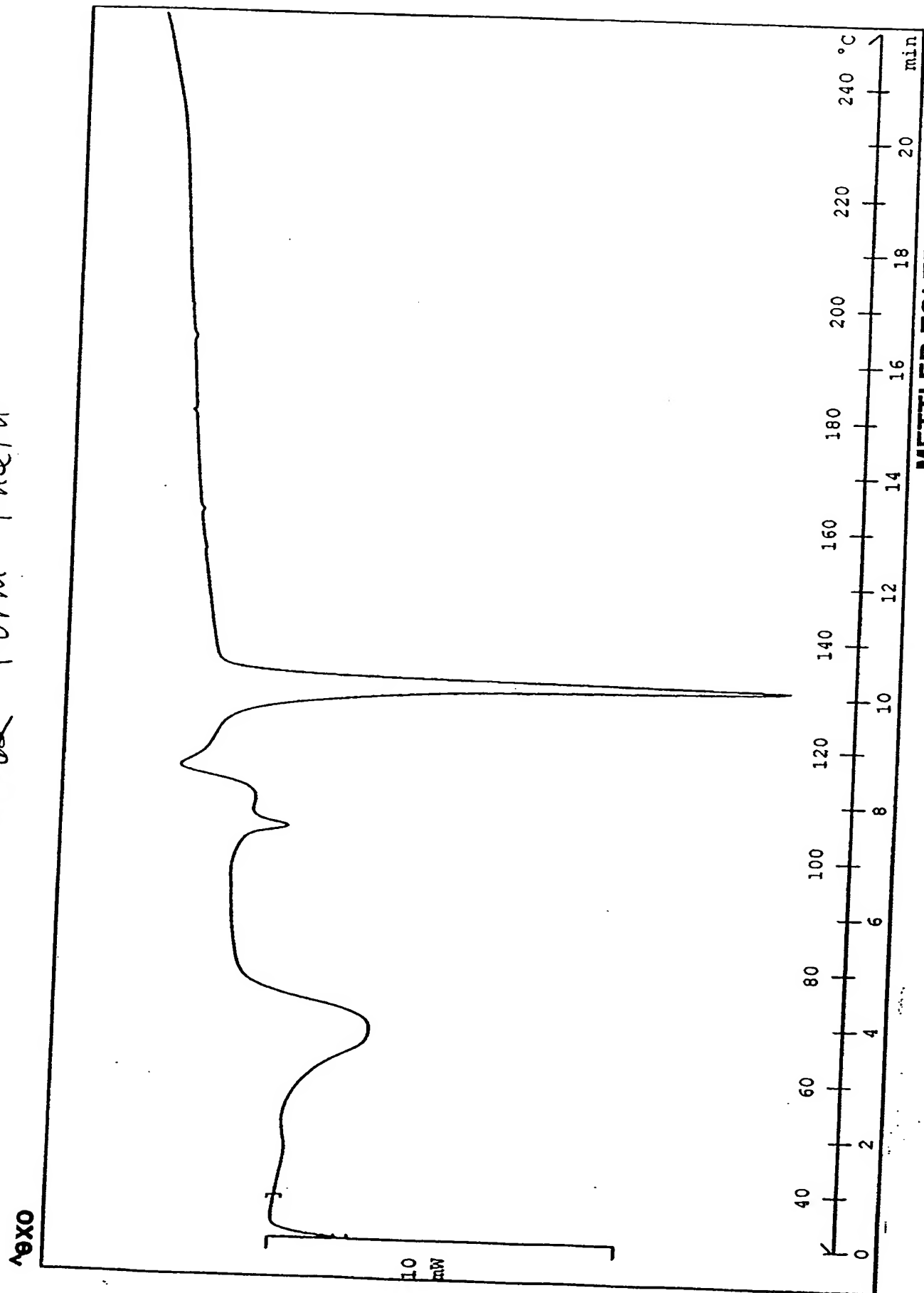
FIGURE 61 Form Sigma



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Form ~ (5)

FIGURE 52-62 Form Theta



METTLER TOLEDO STAR® System

Form θ

Figure 63

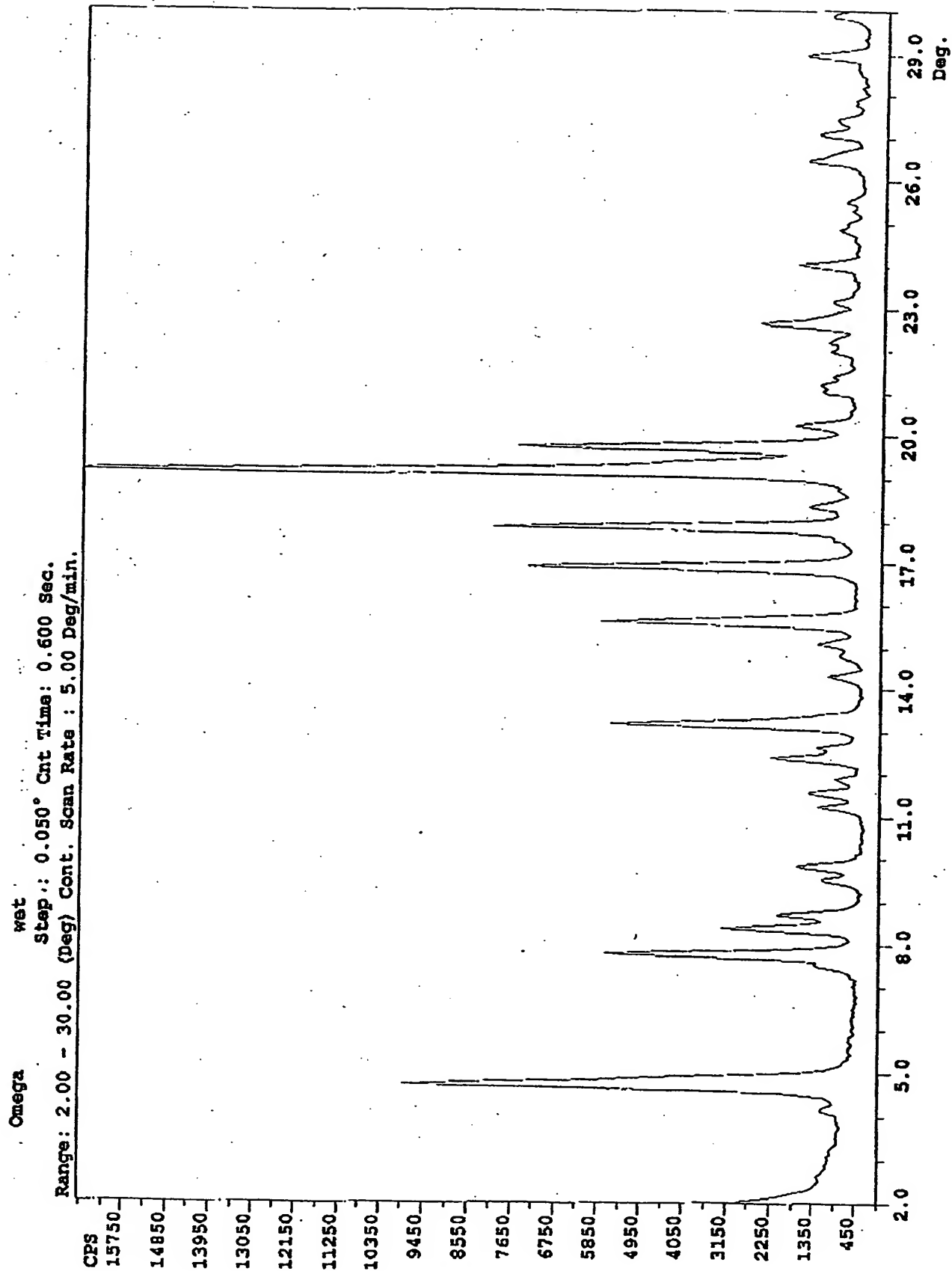




Figure 64

Comparison between the impurity profile of Nateglinide crystallized in IPA-H<sub>2</sub>O and Nateglinide crystallized in Methanol-H<sub>2</sub>O

Sample No	Solvent	Impurity profile by RRT [% w/w]						
		D-PA (0.23)	(0.25)	(0.46)	(0.80)	Ipcha (0.89)	Dimer (1.38)	Methyl Ester (1.51)
RL-2155/1	Methanol-H <sub>2</sub> O	<0.01		0.02	<0.01	0.03	0.02	2.91
RL-2163/4	IPA-H <sub>2</sub> O	<0.01	0.04		0.02	0.02	0.01	0.04
								0.03
								0.02

Note: D-PA means D-Phenyl Alanine

Ipcha means Iso propyl cyclohexyl carboxylic acid

Both are the starting materials of the product

(-)-N-[(trans-4-isopropyl cyclohexane)carbonyl]-D-phenylalanine